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MATERIA MEDICA)

J. U. & C. G. LLOYD

CINCINNATI, OHIO

REPRODUCTION SERIES, No. 5

**AN INVESTIGATION OF THE PROPERTIES OF THE SAN-
GUINARIA CANADENSIS; or PUCCOON**

By WILLIAM DOWNEY, of Maryland

Member of the American Linnean and Philadelphia Medical Societies

**TRAVELS THROUGH THE INTERIOR PARTS OF NORTH
AMERICA IN THE YEARS 1766, 1767 AND 1768.**

By J. CARVER, Esq.

Captain of a company of provincial troops during the late war with France. Illustrated with Copper
Plates. London. Printed for the Author, and sold by J. Walter, at Charing-cross,
and S. Crowder, in Pater-noster Row. MDCCLXXVIII

LIBELLUS DE USU MEDICO PULSATILLÆ NIGRICANTIS

By ANTONIUS STÖRCK. MDCCLXXI

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Capt. JONATHAN CARVER.

From the Original Picture in the possession of J. H. Lettson M.D.

Published as the Act directs by R. Stewart, N.° 287. near St. Turnstile Holborn, Nov. 16. 1780.

CAPTAIN JONATHAN CARVER.

Our Frontispiece portrait of Carver is from the 3rd edition of his *Travels*, published in 1781 by John Coakley Lettsom, who purchased that edition, and the plates.

Jonathan Carver was born in 1732, at Stillwater, in the province of Connecticut. He was a grandson of William Joseph Carver, of Wigan, in Lancashire, England. At the age of 18, he purchased an Ensigncy in Connecticut, obtaining afterward the command of a company. Under General Webb, he took part in the battle of Fort William Henry, where General Montcalm of the French and Indian army was victorious. In 1758 he served as second lieutenant of Captain Hawks' company, commanded by Colonel Oliver Partidge, in the invasion of Canada, and in 1760, he was made Captain of a company in Colonel Saltonstall's regiment. In 1762 he commanded a company of infantry in Colonel Saltonstall's regiment. In all of these positions he acquitted himself admirably, both as concerns integrity and courage. The year after accepting his commission under Colonel Saltonstall, came the Peace of Versailles, 1763, when Carver retired from the army. But he was not content to remain in the lines of civil industry, and struck out into the forests of the great American West and Northwest, as an explorer.

Of rounded experience and good education, he was excellently qualified for descriptive writing, his narratives being both interesting and instructive. Lake Pepin and its vicinity took much of his time, and "Carver's Travels" concern much of that part of America, as regards quadrupeds, birds, fish, descriptions of the natives, vegetation and insects. The portion reproduced in the accompanying Bulletin is that which concerns trees, shrubs, roots, herbs and flowers.

In addition to the work now known as "Carver's Travels," Carver issued a pamphlet of fifty-four pages, on the subject of tobacco, accompanying same by two engravings of the plant, and an account of its cultivation on the American continent. (See Dr. Lettsom's edition of Carver's Travels.)

Captain Carver was rather above the middle stature, muscular in build, and of a florid complexion. He was sociable and affable with friends, but reserved when among strangers. In addition to his scientific descriptions, he touched the poetic, Dr. Lettsom stating that his verses "afford proofs of his lively imagination, and the harmony of his versification."

Notwithstanding the fact that Carver was very religious, and was considered to be a very moral and upright man, he deserted his American wife and children, and went to England, where he again married, thus casting a blot upon his record.

After reaching England, 1769, and publishing his *Travels*, he became distressed in mind, body, and finances, and in 1779, in order to exist, he served as clerk in a lottery office. His vitality and strength were much reduced by depression of mind and body, as well as by the inroads of poverty, and on the 31st day of January, 1780, in the 48th year of his age, he died and was interred in Holywell-Mount burying ground, England.

A detailed biography of Carver may be found in the *Dictionary of National Biography*, by Leslie Stephens. Our brief notice is condensed, mostly, from Dr. Lettsom's Introduction to the 3rd Edition of the work. In this connection it may be stated that Dr. Lettsom's interest in Carver led him in the dark times of Carver's later life to devote both care and money in Carver's behalf, and to contribute much to the support of his English family, giving them the entire returns from the subscriptions to the third edition of the work, for which he, (Lettsom), had paid all expenses.

J. U. L.

AN
INVESTIGATION OF THE PROPERTIES
OF THE
SANGUINARIA CANADENSIS;
OR
PUCCOON.

BY WILLIAM DOWNEY,

OF MARYLAND.—MEMBER OF THE AMERICAN LINNEAN AND
PHILADELPHIA MEDICAL SOCIETIES.

" Let no presuming impious railer tax
Creative wisdom, as if aught was form'd
In vain, or nought for admirable ends."

THOMPSON.

PRINTED, FOR THE AUTHOR, BY

EAKEN & MECUM.

(1803.)

AN
INAUGURAL
EXPERIMENTAL INQUIRY,
FOR THE DEGREE OF
DOCTOR OF MEDICINE.
SUBMITTED TO THE EXAMINATION
OF THE
REVEREND JOHN ANDREWS, D. D.
(PROVOST PRO TEMPORE),
THE
TRUSTEES AND MEDICAL PROFESSORS
OF THE
UNIVERSITY OF PENNSYLVANIA,
ON THE
EIGHTH DAY OF JUNE, 1803.

TO DOCTOR RICHARD PINDELL,
OF MARYLAND.

SIR,

IN the dedication of this, the inaugural fruits of my medical education, commenced under your direction, I shall not consider, that any of my numerous obligations to you, which I with pleasure, thus publicly acknowledge, will be obliterated. Was my dissertation more worthy your notice, your virtues as a citizen, and your merits as a professional character, would alone claim this of me. The friendly instruction which you were ever ready to communicate, and the polite attention which I received from you and your amiable family, during my residence in it, shall always be recollected with gratitude. And that you may long enjoy that happiness, which it is your constant endeavour to communicate to others, is the sincere wish of

Your much obliged Friend,
and Grateful Pupil,

THE AUTHOR.

TO
BENJAMIN SMITH BARTON, M. D.
PROFESSOR OF
MATERIA MEDICA, NATURAL HISTORY AND BOTANY,
IN THE
UNIVERSITY OF PENNSYLVANIA,
THIS
DISSERTATION

IS INSCRIBED, AS A TRIBUTE OF RESPECT AND GRATITUDE FOR NUMEROUS FAVOURS CONFERRED UPON
HIS FRIEND, AND
HUMBLE SERVANT,
THE AUTHOR.

ALSO, TO
DOCTOR FREDERICK DORSEY,
OF
MARYLAND,
THIS IS INSCRIBED, AS A MARK OF
HIGH ESTIMATION,
AND AS AN ACKNOWLEDGMENT OF THE MANY
ACTS OF KINDNESS
SHEWN DURING THE PUPILAGE OF HIS
SINCERE FRIEND,
THE AUTHOR.

EXPLANATION OF THE PLATE.

- A. THE tuberous, premorse root.
- B. A young involved leaf as it appears with the flower.
- C. An expanded leaf after the flower.
- D. An opening corolla, shewing
- d. the calyx, which is a two-leaved perianth, and falls off as soon as the flower begins to expand itself.
- E. The scape supporting the corolla fully expanded.
- F. The pericarpium, which is oblong, ventricose, and bivalved; crowned, with its sulcated stigma.



INTRODUCTION.

*WHEN we take a view of the vast number of vegetables with which our country is adorned, we must candidly acknowledge that our acquaintance with their medical properties, is extremely limited indeed. The investigation of their uses in the arts and as medicines, is an object of some importance to society. There is, perhaps, no portion of the globe that has been more highly favoured by nature in esculent and medicinal vegetables. The *zea* (maize) and potatoes, as articles of diet, stand unequalled; the *podophyllum peltatum*, *nicotiana*, *spigelia* and what has been emphatically called the vegetable antimony, the *eupatorium perfoliatum*, are medicines not inferior to any yet discovered. An infinite number yet remain to be investigated. To increase the list of articles in the *Materia Medica*, is not, however, a desirable object; but to expunge those which are nearly inert, and increase the number of active ones is certainly of the first importance. This taken into consideration, and with a view to the more easy procurement of our medicines, is of sufficient consequence to stimulate to an examination of our indigenous vegetables.*

*I have made a feeble attempt to investigate the properties and uses of the *Sanguinaria Canadensis*, a plant peculiar to our country. Most of*

the experiments have been repeatedly made, and are related with as much precision as I was capable of. Any errors which may have been committed, were through my inexperience in the business of experimenting. Circumstanced as I have been, little more has been done by me than the simple introduction of the subject. It is well worthy further investigation, both as it respects the science of medicine and the arts.

BOTANICAL ARRANGEMENT.

THE genus *Sanguinaria* belongs to Linnæus's twenty-seventh natural order, Rhœdeæ. In his sexual system he places it in the class polyandria and order monogynia. The characters which he gives of the fructification are as follows: *

CAL. Petals eight,† oblong, obtuse, most expanding; the alternate ones interior, narrower.

STAM. Filaments very numerous, simple, shorter than the corol. Anthers simple.

PIST. Germ oblong, compressed. Style none. Stigma thickish, two furrowed with a stria the height of the stamens, permanent.

PER. Capsule oblong, bellied, acute at both ends, two valved, seeds very numerous, round and pointed.

* Translation by the Litchfield society.

† From eight to fourteen.

DESCRIPTION OF THE PLANT.

- 1st. Root. Is of a very indefinite size, varying in thickness from one fourth to half an inch in diameter, and in length from three to four inches. It is sometimes pretty straight, with a curvature at each end; that from which the stalk proceeds is always to be found, but the other is frequently wanting, having the appearance of being broken. Numerous stringy fibres of two or three inches in length are observed to originate from the body of the root. A coloured liquor, that stains paper of a beautiful orange colour, is thrown out when a root is broken, from a great number of very minute veins.
- 2d. The petiole or foot-stalk of the leaf is round, generally from six to eight inches in length and thickness of a quill.
- 3d. The scapus or stalk which supports the flower, is of a like length with the petiole, but is not quite so thick. Both of them, when broken or squeezed, emit a coloured liquor, which stains of a very pale yellow. Near their origin from the root they are of a reddish colour, which becomes much more faint near the leaf.
- 4th. The leaves are cordate and lobate. The number of lobes are mostly five or seven, and their edges have a number of small indentations of unequal depths. There is but one leaf to a stalk, which stands nearly in a horizontal direction from the top of the

stalk. On each lobe, one large fibre of a very light yellow colour, may be seen running from the stalk, and many smaller ones branching from it in all directions.

OF ITS NATURAL HISTORY.

THE plant which is the subject of the present enquiry, is known by different appellations, in America, as the puccoon, bloodwort, red root, Indian paint, turmeric, &c.

PERHAPS it is one of the most abundant vegetables of our country. In the Florida's it is found to grow plentifully, and Professor Barton informs me, he has seen it as far north as latitude 43° , and imagines it extremely probable, that it extends much farther. We find it generally inhabiting a rich loose soil, and the declivities of hills. It is seldom or never found to grow in lands, which have been cleared of their timber, or in a state of cultivation. Its flowers generally appear about the first of April, and before its leaves put out.

ANALYSIS OF THE ROOT.

EXPERIMENT I.

HAVING obtained a quantity of the root dried, and reduced to a gross powder, six ounces of water were poured on two ounces of it; after standing twelve hours, the whole was subjected to a low degree of heat in a glass retort, to which a receiver was properly adapted. At the expiration of three hours, the liquor which had passed into the receiver, was examined, and found to be

perfectly colourless and insipid. On increasing the heat, a fluid slightly coloured, came over, which had the peculiar smell of the recent root, and was considerably acrid in the fauces. Neither the first nor the last portion was altered by the addition of a solution of the oxy-sulphate of iron. Paper stained with litmus underwent no change.

EXPERIMENT II.

SIX ounces of alkohol were digested in the sun, and one ounce and a half of the root, dried and reduced to a coarse powder, for the space of seven days; it was then decanted, and a fresh quantity added; after standing also the same length of time, it was put with the first portion in a glass vessel, and exposed to evaporation, in a gentle heat. Ninety-eight grains of resin, and extractive matter of a beautiful crimson colour, were obtained, of a warm agreeable bitter taste. One dram of this was triturated in a glass vessel, with some warm water, which was afterwards passed through a filter, and evaporated. On drying, and collecting that which was insoluble, in water, it was found to weigh sixteen grains; the saponaceous or extractive matter, which was soluble in alkohol, as well as water, weighed thirty-eight grains. In the course of the experiment six grains were lost.

HAVING dried the roots on which the alkohol had been digested, a quantity of boiling water was poured on them, which, after standing a short time, was passed through a filter, and evaporated. One dram two scruples of gummous matter were obtained, of a dark colour, and an acrid bitter taste: a small quantity dis-

solved in the saliva, and swallowed, produced considerable irritation in the fauces, which continued for several hours.

To ascertain what action the different principles of the root, had on the human body, in a state of combination, and when separated, the following experiments were made:

EXPERIMENT III.

HAVING breakfasted at eight o'clock, I took twenty grains of the recent root two hours after, my pulse beating seventy-six strokes in a minute.

Min	5	10	15	20	25	30	35	40	45	50	55	60	65	70
Puls.	76	78	80	84	86	86	87	84	82	85	80	77	74	75
M.	75	80	85	90										
P.	73	72	73	74										

IN ten minutes I had a burning sensation at my stomach, pulse full and strong; twenty-five, a considerable nausea came on, my pulse very irregular, and not so full; forty, I had a slight head-ach, my face very pale; fifty, the nausea returning at intervals, rendered my pulse extremely irregular, in fullness and force. About three hours from the time of taking it, it purged me gently two or three times.

EXPERIMENT IV.

To my friend and fellow graduate, Mr. Young, four hours after dining lightly, I gave twenty-three grains of the pulverized root, made into pills, with honey. In fifteen minutes he

complained of a burning at his stomach, his pulse very quick, without much fullness; thirty, he had a great nausea; and in thirty-five, it operated most violently as an emetic, producing six or seven full vomitings. He drank a considerable quantity of warm tea, with the view of assisting the operation, and to allay the violent irritation which was produced in his throat. All the contents of his stomach, as well as the tea, on being discharged, were of a colour similar to the decoction of the root.

EXPERIMENT V.

THREE hours after dining lightly on veal and potatoes, my friend Mr. Rees, took eight grains of the extract obtained by alcohol from the dried root, his pulse beating eighty strokes in a minute.

Min.	5	10	15	20	25	30	35	40	45	50	55	60	65
Puls.	80	82	82	80	82	84	86	84	84	85	86	88	89

IN fifteen minutes he had a warmth at his stomach, which he compared to that produced by camphor, his pulse a little fuller; twenty-five, his pulse was strong and full; thirty-five, a slight nausea commenced; forty-five, he had eructations of wind from his stomach; sixty-five, he had one gentle motion to vomit.

EXPERIMENT VI.

To my friend, Mr. Young, I gave eight grains of the extract, obtained by decoction, with water, and evaporation, his pulse performing only fifty-eight strokes in a minute: in

twenty minutes, his pulse was increased to sixty-two, and had a warmth at his stomach: when forty minutes had elapsed, he became much affected with nausea, and was shortly after relieved from every disagreeable sensation, by discharging the contents of his stomach. It produced only two motions and those very gentle. He observed to me, that in this, as also in the former experiment, he experienced some difficulty in discharging his urine, having somewhat of an ardor urinæ.

EXPERIMENT VII.

HAVING breakfasted at eight o'clock. I took eight grains of the saponaceous or extractive matter, at half past ten, my friend Mr. Walker, attending to my pulse which was at its standard seventy-six.

Min.	5	10	15	20	25	30	35	40	45	50	55	60	65	70
Puls.	76	77	77	79	78	79	78	78	80	81	79	78	77	75
M.	75	80	85	90										
P.	76	76	75	76										

IN twenty minutes I had a slight nausea, my pulse diminished in fullness and force; thirty, my pulse very small and quick; forty, I had a disposition to puke, which, however, continued but for a very short time; fifty, the nausea had nearly disappeared, and my pulse became considerably fuller; seventy, my pulse was nearly natural in fullness and force, only being a little irregular.

EXPERIMENT VIII.

To my friend Mr. Bartram, four hours after taking breakfast, I gave eight grains of the gummous matter, his pulse beating seventy-eight strokes in a minute.

Min.	5	10	15	20	25	30	35	40	45	50	55	60
Puls.	78	78	80	81	80	83	83	82	80	80	78	82

IN fifteen minutes a slight nausea came on with a burning at his stomach; forty, he complained of a head-ach, the nausea, at intervals, much more violent; sixty, he was vomited twice, the motions were pretty strong.

EXPERIMENT IX.

TWO hours after breakfasting, my pulse at seventy-four, I took eight grains of the resin, my friend Mr. Walker attending to my pulse.

Min.	5	10	15	20	25	30	35	40	45	50	55	60	65	70
Puls.	75	75	76	77	77	76	75	77	75	74	74	73	74	74

IN twenty minutes my pulse was a little fuller, with an agreeable sensation at my stomach; from this time, through the whole course of the experiment, there was no perceptible change in my pulse, or my feelings, except what might be occasioned by continuing in the same posture for such a length of time.

ANALYSIS OF THE LEAVES.

EXPERIMENT X.

ONE half ounce of the leaves was boiled for half an hour, with a pint of water, which was then poured through a filter, and evaporated. Fifty-eight grains of a dark coloured extract were obtained, of a pleasant sub-acid taste. To the same leaves which were previously dried in the sun was added a portion of alkohol, which after digesting in a gentle heat for three days, was decanted and evaporated in a glass vessel. Twelve grains of resinous matter were obtained, which was nearly of an insipid taste.

To the fifty-eight grains of extract were then added, two ounces of alkohol, which after standing four days in the sun, was poured off and evaporated. Eighteen grains of saponaceous or extractive matter, were obtained.

EXPERIMENT XI.

MY friend and fellow graduate, Mr. Pendergrast, two hours after breakfasting, took four grains of the leaves powdered and made into pills, his pulse at seventy-six strokes in a minute.

Min.	5	10	15	20	25	30	35	40	45	50	55	60	65	70
Pvls.	76	78	79	80	80	82	80	82	78	77	74	72	74	76
M.	75	80												
P.	76	75												

IN fifteen minutes his pulse became fuller, and he had a sensation of warmth at his stomach; twenty-five he had a fullness in his head

with vertigo; forty, he complained of great debility and head-ach; sixty, he was affected with slight tremors, and very frequent yawning; eighty, his sensations were natural in every respect, but for a slight sickness at his stomach, which continued for several hours after.

EXPERIMENT XII.

TWO hours after taking a light breakfast, I took eight grains of the leaves made into pills, my friend Mr. Walmsley attending to my pulse, which was at its standard seventy-six.

Min.	5		10		15		20		25		30		35		40		45		50		55		60		65		70	
Puls.	76		76		76		78		80		82		83		84		80		78		76		75		74		74	
M.	75		80		85																							
P.	73		77		76																							

IN fifteen minutes I had a warmth at my stomach; twenty-five, my face was flushed, and had a fullness in my head with a slight vertigo; thirty, my wrists were cold, and a profuse sweat on my forehead; forty, a slight nausea came on, my pulse small and quick; fifty-five, my pulse was somewhat fuller, the affection of my head still continued, with slight involuntary motions of my muscles; eighty, my pulse was nearly natural, but I felt extremely languid, with a dull head-ach, which did not leave me for several hours.

EXPERIMENT XIII.

MY pulse at its standard seventy-six, I took four grains of the extract obtained by decoction with water and evaporation.

Min.	0	5	10	15	20	25	30	35	40	45	50	55	60	65
Puls.	76	76	76	78	80	82	84	86	84	82	82	80	78	76
M.	70	75	80	85	90	95	100							
P.	75	74	72	73	74	73	76							

IN twenty-five minutes I had a pleasant warmth at my stomach, my pulse full; thirty-five, my pulse was rather small and quick, with considerable tension; forty-five I was affected with tremors, as in the preceding experiment; seventy-five, I had a dull pain directly over my eyes, and felt extremely languid; ninety-five, my pulse was smaller than usual, and I had a disagreeable sensation at my stomach, that continued for the remainder of the day.

OF THE PERICARPIUM, OR SEED VESSEL AND SEEDS.

EXPERIMENT XIV.

HAVING procured two drams of the seed vessels and seeds not arrived at maturity, six ounce measures of water were boiled on them, until evaporated to two. Of this I took two dram measures, my friend Mr. Walmsley attending to my pulse.

Min.	0	5	10	15	20	25	30	35	40	45	50	55	60	65
Puls.	76	76	78	82	82	80	83	83	81	82	79	77	79	81
M.	70	75	80	85	90									
P.	76	75	75	77	76									

IN twenty minutes not perceiving that any other effect was produced than increasing my pulse a little in frequency, I took two drams

more; thirty-five, I had a glow of warmth over my body; forty-five, I took three drams more; fifty, I perspired freely, my pulse tense and quick, though not full; seventy, my pulse was extremely irregular; a torpor of my whole system came on, with very frequent yawning; ninety, my pulse nearly as full as usual, though not so strong, and fluctuating. I was not entirely free from the effects of it, in the space of two hours.

EXPERIMENT XV.

MY friend Mr. Wootton, two hours after dining, took five dram measures of the decoction, his pulse at eighty strokes in a minute.

Min.	5	10	15	20	25	30	35	40	45	50	55	60	65	70
Puls.	80	83	84	87	88	86	84	85	83	81	79	77	78	80
M.	75	80	85	90										
P.	81	79	78	78										

IN fifteen minutes his pulse was very strong and full; twenty it became smaller and tense; forty, his pulse was remarkably small and quick; fifty-five, he complained of great languor, with an irresistible propensity to yawn; his countenance pale: he mentioned that his vision was somewhat affected; the pupils of his eyes were evidently dilated more than usual; ninety, his pulse was nearly of its natural fulness, though very irregular, the languor still continuing, as also the propensity to yawn for some time afterwards.

REMARKS ON THE PRECEDING
EXPERIMENTS.

FROM the result of the two first experiments, it appears that there is a gum, a resin, and a saponaceous or extractive matter in the root, but that the former preponderates considerably. In the leaves a still larger proportion is found to exist, and a much smaller quantity of saponaceous or extractive matter.

BY experiment fourth, it is shewn, that the root of our plant is endowed with powerful emetic qualities, when taken in the dose of fifteen or twenty grains. But in consequence of the irritation which is produced in the fauces, it is probable, that in the form of a powder, it will never come into general use. This inconvenience may, however, be obviated, by giving it in form of a decoction or extract. Eight grains acted as a very gentle emetic in experiment sixth, without having any such effect. It is but little inferior to the ipecacuanha, either in the certainty or speediness of its operation.

THE principle of activity resides chiefly in the gum and saponaceous or extractive matter, but more especially in the former. The resin possesses little or no activity. Perhaps the most certain preparation as an emetic, would be the gum; though combined with the saponaceous matter, as I have already said, it operates pretty certainly.

THE primary and most prominent effects induced by it, were a warmth at the stomach, an increase in the frequency and force of the pulse;

and if in a considerable dose, nausea and vomiting, in a smaller one, it increased in a remarkable manner the appetite. In all the experiments it had a tendency to produce costiveness, except in the third, when it acted gently cathartic.

THE powder of the root may be given as an emetic for an adult, in the dose of fifteen or twenty grains, made into pills; otherwise a considerable irritation will be produced in the fauces on taking it. As a stimulating tonic, two or four grains may be taken, if nausea be produced, the dose must be diminished. I have repeatedly experienced very sensible effects from taking one single grain.

THE experiments xii, xiii and xiv, evince a difference in the properties of the leaves and root.* Not only in these cases which are related, but also in several others not mentioned, they evidently induced tremors, head-ach, and a great torpor of the system. Such effects are only induced by substances, deleterious to the human constitution.

THE few experiments which I made with the unripe seeds, convinced me that they possessed a very considerable influence over the pulse, and a stupifying or narcotic quality.† Not

* That different parts of the same vegetable should possess powers extremely dissimilar, is a circumstance which frequently occurs, thus, in the *Podophyllum Peltatum* (or May apple,) a plant nearly allied in its botanical affinities to the *Sanguinaria*; we find the fruit esculent, the leaves deleterious, and the root cathartic. This, like many of the mysterious operations of nature, claims our admiration, though incapable of explanation.

† Professor Barton, in his *Essay towards a Materia Medica of the United States*, mentions, "that the seeds appear to possess nearly the same quality as the seeds of the *Datura Stramonium*," which are powerfully narcotic.

being able to procure any of the ripe seeds, which, in all probability, are more powerful, I was prevented from entering so fully into this part of my subject as I could have wished.

AS A COLOURING MATTER.

THE juice of the root making a very fine dye of an orange colour, has frequently been used by country people, for the purpose of staining flannels and woollen cloths.* But it unfortunately is one of those colours, which require an intermediate substance to give it fixity. For frequent washing, and exposure to the sun, destroy it entirely. Considering it of some importance, to discover a substance which would give it this permanency, by rendering it insoluble in water, I made several experiments—But previously, to ascertain what effects those substances commonly made use of as mordants, would have upon the colouring matter, I made the following:

A SMALL quantity of the *nitric acid* was added to some of the decoction of the root, which was nearly of a brown colour; a precipitate instantly took place, and the liquor changed to a muddy yellow colour.

ON adding the *muriatic acid*, the colour was rendered much more vivid, without any precipitation occurring.

* Professor Barton informs me, that the Indians also make use of it, as a dye for their baskets and articles of ornament.

THE *sulphuric* was attended with the same results as the *marine*.

Sulphate of alumine (or allum,) produced very little change in the colour.

Acetate (or sugar of lead,) destroyed the colour almost entirely, and after standing some time, a copious precipitate of a whitish appearance, fell to the bottom.

Tartrite of pot-ash (or cream of tartar) produced no perceptible change.

Murio-sulphate of tin, produced a beautiful mixed colour, between an orange and a red, without any precipitation taking place.

AN infusion, as also the alkohol of galls, produced a colour nearly similar to that of the *murio-sulphate of tin*, but after standing some time, a precipitate took place.

ON adding the *prussiate of pot-ash*, a dark coloured precipitate took place, after standing a short time, and the super-natant liquor was perfectly colourless; but on pouring in a very small quantity of *sulphuric acid*, the precipitate was redissolved, and the original colour restored.

HAVING premised these experiments, I shall proceed to relate the results of several which were made on pieces of flannel, silk, cotton and linen, with a view to discover a proper mordant for them.

EXPERIMENT I.

TWO ounces of *sulphate of alumine* (or al-

lum,) were dissolved in a pint of water; in the solution the strips of flannel, silk, &c. were boiled for fifteen minutes; when they were taken out, and thrown into a decoction, made by boiling a quart of water on two ounces of the dried root; after stirring them about for a few minutes, they were taken out and placed in the sun to dry. They had all acquired a deep orange colour; but on boiling them in some water, that of the cotton and linen faded considerably, the flannel and silk were but little changed.

EXPERIMENT II.

EQUAL quantities of the *sulphate of alumine* (or allum,) and *tartrate of pot-ash* (or cream of tartar,) were dissolved in some water, and pieces of flannel, &c. boiled in this solution. On taking them out and dyeing them, they acquired a colour nearly similar to that in the first experiment; but on treating them in the same manner, great part of the colouring matter was washed out, more particularly in the linen and cotton.

EXPERIMENT III.

A STRONG solution of the *acetate* (or sugar of lead,) was made with rain water, and the same process performed as in the other experiments. The result was, that the flannel and silk acquired a colour approaching to a pale red; but was considerably changed by boiling; the linen and cotton were at first but slightly tinged, and which was entirely washed out.

EXPERIMENT IV.

HAVING dissolved about two ounces of the *sulphate of alumine* in some boiling water, the different pieces of cloths were immersed in it, and as much caustic pot-ash was added as was sufficient to precipitate the *alumine*, by uniting to the *sulphuric acid*, and forming *sulphate of pot-ash*. After boiling them for some time, they were taken out and dyed; the flannel and silk exhibited a very fine orange colour; the linen and cotton retained much less of the colouring matter. Boiling in water rendered the colour more bright in the flannel and silk, but in the others nearly washed it out.

THIS experiment I varied a little, but not with exactly the same result. Having immersed the bits of flannel, &c. in the solution of allum, they were taken out, and a portion of *caustic ammoniac* poured on them, which uniting to the acid deposited the *alumine* on the bits of cloth. They were then dyed, but did not retain the colouring matter as well as in the other experiment.

EXPERIMENT V.

THE *murio sulphate of tin* made use of as a mordant, produced an orange colour tinged with red. Washing in water rendered it somewhat more faint, but both the linen and cotton, as well as the other bits of cloth, remained of a very bright orange.

EXPERIMENT VI.

DILUTED *sulphuric acid* was tried, as a mordant. All the pieces of cloth exhibited a vivid orange colour, but boiling water washed a considerable portion of it out.

EXPERIMENT VII.

A PIECE of white broad cloth was boiled with a solution of the *sulphate of iron*, and then dyed. A colour approaching to a drab was produced after washing.

OBSERVATIONS ON THE FOREGOING EXPERIMENTS.

BY the first experiments, it appeared, that the colour was entirely destroyed by some articles, and by others, it acquired different shades, which might be varied at pleasure.

IN all the experiments made with a view to find a mordant, the flannel and silk acquired a deeper or lighter colour, which could never be entirely washed out. But in none was the orange colour retained so completely as in experiment fourth, when the alumine was used as the mordant. The murio-sulphate of tin produced a very handsome colour, which was sufficiently permanent; and was the only mordant that fixed it on the cotton and linen.

UPON the whole, by the foregoing experiments, I think it is ascertained that the sulphate

of alumine, or the alumine alone, and the murio-sulphate of tin, are tolerable good mordants for flannel, cotton, silk and linen.

THE colours produced by the puccoon are rich, and might undoubtedly, if taken in hands by one conversant in the business of dyeing, become one of their most valuable articles.

OF THE PROPERTIES OF THE PUC- COON AS A MEDICINE.

WE have seen that it is a powerful stimulant, and that when taken in certain doses, it excites vomiting. And that in small doses it acts as a general stimulating tonic, as is shewn by its increasing the appetite, and its action on the arterial system.

It has been placed in the class of emetics by Professor Barton,* which is certainly its proper arrangement. Its most prominent effect being to induce vomiting even in moderate doses.

THE leaves and seeds ought to be classed with the incitants, for they evidently are powerful and diffusible stimulants.

IN common with other articles belonging to that class, they sometimes act as diaphoretic† and diuretics.

* See his collections for an essay towards a *Materia Medica* of the United States.

† My much esteemed friend Dr. F. Dorsey, of Maryland, informed me in a letter, that the root was frequently given by farriers to horses, with a view to induce sweating, and to promote the shedding of their old coats of hair.

AS an errhine, the root finely pulverized, is perhaps inferior to none; a small quantity snuffed up the nose, induces an immense discharge and violent irritation.

OF ITS USE IN PARTICULAR DISEASES.

1. INTERMITTING FEVER. I have been informed by a very intelligent gentleman,* that a spirituous tincture of the roots, is very generally used by the inhabitants of low marshy grounds, in the southern states, as a preventive to the intermitting fever; and in what is called inward fevers, which is but an inferior grade, and is cured by the same remedies. From its general properties, very probably it might be a very useful medicine in this disease, in some particular states.

2. DYSENTERY. This being a disease, in the primary states, requiring depletion, and the careful abstinence from stimulating and tonic medicines, would render the use of the puccoon very precarious, but after sufficient evacuations have been made or in chronic cases, it will be found a medicine of great value.

IN the western parts of this state, I have been told, a decoction of it has been used with great advantage, and from the very commencement of the complaint. Probably it was given in such quantities as to prove emetic, or produce a deter-

* Mr. William Bartram.

mination to the surface of the body, and thereby induce sweating, which is the practice of some physicians in this disease.

3. JAUNDICE. The roots dried and reduced to a powder, was recommended by Colden, in this disorder. The dose, however, which he tells us may be taken, is certainly too large; few systems would bear more than half the quantity. It is more than probable that our medicine was first introduced as a remedy for this disease, under the influence of the absurd doctrine of signatures. A similarity subsisting between the colour of the juice, and the jaundiced eye, was proof sufficiently strong of the propriety of administering it. Acting as an emetic, no doubt it eventually proved effectual in some cases. Biliary concretions, obstructing the ducts, are not unfrequently forced into the duodenum by the violent agitation induced by an emetic. So far we believe it might, in some instances, be of use in this complaint.

4. ULCEROUS SORE THROATS. I would infer, from its effects generally, that it will be found a valuable medicine, where there is a tendency to slough, or an accumulation of sordes in the throat, as frequently occurs in what is called the putrid sore throat; if given in sufficient quantities to induce vomiting, it would be useful, both by removing this collection, and stimulating to a healthy action.

5. AMMENORRHEA. It is very uncertain whether our medicine possesses any other quality than that of a powerful stimulus, and that its action is upon the system generally. One case,

however, related to me,* seems to shew, that it manifestly exerts an influence, sometimes over the uterine system. A young woman who was pregnant, by taking a small quantity of it, with a view to excite a sweat, produced thereby an abortion. Perhaps, when other remedies fail, in obstructions of the menses, it might be worth while to try it.

GONNORRHEA. Doctor Schoepf makes mention of a decoction being useful in this complaint, though he does not say in what manner it is used. In the first stages no preparation of it can be proper: but in chronic gonnorrheas or gleet, it will be found a very effectual remedy. From one to two drams of the dried root, may be infused in ten ounces of water, and about two tea-spoonfuls of this injected into the urethra three or four times a day. By this treatment, a young gentleman who had been affected with a gonnorrhea for near four months, and had used the common remedies for this complaint without effect, was completely cured.

OF ITS EXTERNAL APPLICATION.

MY amiable and ingenious friend Mr. Grimes, at my request, made a few experiments with the root, in ill-conditioned ulcers of long standing. In one or two of the cases, the edges of the ulcers were callous, and a thin ichorous matter was discharged. No dressings had been applied to them for some time previously, except a plaister of the common unguent. præ. Rub. A portion of the powdered root was sprin-

* By Mr. E. Griffiths, one of the Physicians to the Alms'-house.

kled over the ulcers, and then covered with a little common cerate, in which some of the powder was also incorporated. The discharge, by this treatment, was much amended; the callous edges were rendered much softer, and the ulcers in general acquired a healthy appearance. It may be proper to observe, that these changes were effected by only a few applications of it: possibly, if the use of it had been continued for some length of time, a cicatrization might have taken place.

THE juice of the root has been mentioned as a cure for warts, and against the bite of some particular kinds of snakes. Whether it is entitled to any notice as such, I will not pretend to say.

WITH this I conclude my essay, conscious of its many imperfections, and that little has been done by me, though a subject of great importance, and claiming the attention of physicians, as also artists. I cannot, however, take leave of this University, without returning my sincere acknowledgments to the different Professors, for the much useful information I have received from them; but in a more particular manner to Professors Barton and Wistar, for their friendly attention and kindness to me.

THE END.

T R A V E L S

THROUGH THE

INTERIOR PARTS

OF

NORTH-AMERICA,

IN THE

YEARS 1766, 1767, and 1768.

BY J. CARVER, Esq.

CAPTAIN OF A COMPANY OF PROVINCIAL
TROOPS DURING THE LATE
WAR WITH FRANCE.

ILLUSTRATED WITH COPPER PLATES.

L O N D O N :

PRINTED FOR THE AUTHOR ;

And Sold by J. WALTER, at Charing-cross, and
S. CROWDER, in Pater-noster Row.

M DCC LXXVIII.

T O

JOSEPH BANKS, Esq. F.R.S.

S I R,

WHEN the Public are informed that I have long had the Honour of your Acquaintance—that my Design in publishing the following Work has received your Sanction—that the Composition of it has stood the Test of your Judgment—and that it is by your Permission a Name so deservedly eminent in the Literary World is prefixed to it, I need not be apprehensive of its Success; as
your

D E D I C A T I O N .

your Patronage will unquestionably give them Assurance of its Merit.

For this public Testimony of your Favour, in which I pride myself, accept, Sir, my most grateful Acknowledgments ; and believe me to be with great Respect,

Your obedient

humble Servant,

LONDON,
June 20, 1778,

J. CARVER.

[TRAVELS THROUGH THE INTERIOR PARTS
OF NORTH-AMERICA, IN THE YEARS
1766, 1767, AND 1768.]

CHAP. XIX.

*Of the TREES, SHRUBS, ROOTS, HERBS,
FLOWERS, &c.*

I SHALL here observe the same method that I have pursued in the preceding chapter, and having given a list of the trees, &c. which are natives of the interior parts of North America, particularize such only as differ from the produce of other countries, or being little known, have not been described.

OF TREES.

The Oak, the Pine Tree, the Maple,
the Ash, the Hemlock, the Bass or
White Wood, the Cedar, the Elm, the
Birch, the Fir, the Locust Tree, the
Poplar, the Wickopic or Suckwic, the
Spruce,

Spruce, the Hornbeam, and the Button Wood Tree.

The OAK. There are several sorts of oaks in these parts; the black, the white, the red, the yellow, the grey, the swamp oak, and the chesnut oak: the five former vary but little in their external appearance, the shape of the leaves, and the colour of the bark being so much alike, that they are scarcely distinguishable; but the body of the tree when sawed discovers the variation, which chiefly consists in the colour of the wood, they being all very hard and proper for building. The swamp oak differs materially from the others both in the shape of the leaf, which is smaller, and in the bark, which is smoother; and likewise as it grows only in a moist gravelly soil. It is esteemed the toughest of all woods, being so strong yet pliable, that it is often made use of instead of whalebone, and is equally serviceable. The chesnut oak also is greatly different from the others, particularly in the shape of the leaf, which much resembles that of the chesnut tree, and for this reason it is so denominated.

nominated. It is neither so strong as the former species, or so tough as the latter, but is of a nature proper to be split into rails for fences, in which state it will endure a considerable time.

The PINE TREE. That species of the pine tree peculiar to this part of the continent is the white, the quality of which I need not describe, as the timber of it is so well known under the name of deals. It grows here in great plenty, to an amazing height and size, and yields an excellent turpentine, though not in such quantities as those in the northern parts of Europe.

The MAPLE. Of this tree there are two sorts, the hard and the soft, both of which yield a luscious juice, from which the Indians by boiling make very good sugar. The sap of the former is much richer and sweeter than the latter, but the soft produces a greater quantity. The wood of the hard maple is very beautifully veined and curled, and when wrought into cabinets, tables, gunstocks, &c. is greatly valued. That of the soft sort differs in its texture, wanting the variegated grain of the hard; it also
grows

grows more strait and free from branches, and is more easily split. It likewise may be distinguished from the hard, as this grows in meadows and low-lands, that on the hills and up-lands. The leaves are shaped alike, but those of the soft maple are much the largest, and of a deeper green.

The ASH. There are several sorts of this tree in these parts, but that to which I shall confine my description, is the yellow ash, which is only found near the head branches of the Mississippi. This tree grows to an amazing height, and the body of it is so firm and sound, that the French traders who go into that country from Louisiana to purchase furs make of them periaguays. This they do by excavating them with fire, and when they are completed, convey in them the produce of their trade to New Orleans, where they find a good market both for their vessels and cargoes. The wood of this tree greatly resembles that of the common ash, but it might be distinguished from any other tree by its bark; the ross or outside bark being near eight inches thick, and indented with furrows more than six

I i

inches

inches deep, which make those that are arrived to a great bulk appear uncommonly rough; and by this peculiarity they may be readily known. The rind or inside bark is of the same thickness as that of other trees, but its colour is a fine bright yellow; insomuch that if it is but slightly handled, it will leave a stain on the fingers, which cannot easily be washed away; and if in the spring you peel off the bark, and touch the sap, which then rises between that and the body of the tree, it will leave so deep a tincture that it will require three or four days to wear it off. Many useful qualities belonging to this tree I doubt not will be discovered in time, besides its proving a valuable acquisition to the dyer.

The HEMLOCK TREE grows in every part of America in a greater or less degree. It is an ever-green of a very large growth, and has leaves somewhat like that of the yew; it is however quite useless, and only an incumbrance to the ground, the wood being of a very coarse grain, and full of wind-shakes or cracks.

The

The BASS or WHITE WOOD is a tree of a middling size, and the whitest and softest wood that grows; when quite dry it swims on the water like a cork; in the settlements the turners make of it bowls, trenchers, and dishes, which wear smooth, and will last a long time; but when applied to any other purpose it is far from durable.

The WICKOPICK or SUCKWICK appears to be a species of the white wood, and is distinguished from it by a peculiar quality in the bark, which when pounded and moistened with a little water, instantly becomes a matter of the consistence and nature of size. With this the Indians pay their canoes, and it greatly exceeds pitch or any other material usually appropriated to that purpose; for besides its adhesive quality, it is of so oily a nature, that the water cannot penetrate through it, and its repelling power abates not for a considerable time.

The BUTTON WOOD is a tree of the largest size, and might be distinguished by its bark, which is quite smooth and prettily mottled. The wood is very proper for the use of cabinet-makers. It is

I i 2

covered

covered with small hard burs which spring from the branches, that appear not unlike buttons, and from these I believe it receives its name.

NUT TREES.

The Butter or Oilnut, the Walnut, the Hazlenut, the Beechnut, the Pecannut, the Chesnut, the Hickory.

The BUTTER or OILNUT. As no mention has been made by any authors of this nut, I shall be the more particular in my account of it. The tree grows in meadows, where the soil is rich and warm. The body of it seldom exceeds a yard in circumference, is full of branches, the twigs of which are short and blunt, and its leaves resemble those of the walnut. The nut has a shell like that fruit, which when ripe is more furrowed, and more easily cracked; it is also much longer and larger than a walnut, and contains a greater quantity of kernel, which is very oily, and of a rich agreeable flavour. I am persuaded that a much purer oil than that
of

of olives, might be extracted from this nut. The inside bark of this tree dyes a good purple; and it is said, varies in its shade, being either darker or lighter according to the month in which it is gathered.

The BEECH NUT. Though this tree grows exactly like that of the same name in Europe, yet it produces nuts equally as good as chesnuts; on which bears, martins, squirrels, partridges, turkies, and many other beasts and birds feed. The nut is contained, whilst growing, in an outside case like that of a chesnut, but not so prickly; and the coat of the inside shell is also smooth like that; only its form is nearly triangular. Vast quantities of them lie scattered about in the woods, and supply with food great numbers of the creatures just mentioned. The leaves, which are white, continue on the trees during the whole winter. A decoction made of them is a certain and expeditious cure for wounds which arise from burning or scalding, as well as a restorative for those members that are nipped by the frost.

The PECANNUT is somewhat of the walnut kind, but rather smaller than a

I i 3 walnut,

walnut, being about the size of a middling acorn, and of an oval form; the shell is easily cracked, and the kernel shaped like that of a walnut. This tree grows chiefly near the Illinois river.

The HICKORY is also of the walnut kind, and bears a fruit nearly like that tree. There are several sorts of them, which vary only in the colour of the wood. Being of a very tough nature, the wood is generally used for the handles of axes, &c. It is also very good fire wood, and as it burns an excellent sugar distills from it.

FRUIT TREES.

I need not to observe that these are all the spontaneous productions of nature, which have never received the advantages of ingrafting, transplanting, or manuring.

The crab apple-tree, the plum-tree, and the cherry-tree.

The CRAB APPLE-TREE bears a
fruit

fruit that is much larger and better flavoured than those of Europe.

The PLUM-TREE. There are two sorts of plums in this country, one a large sort of a purple cast on one side, and red on the reverse, the second totally green, and much smaller. Both these are of a good flavour, and are greatly esteemed by the Indians, whose taste is not refined, but who are satisfied with the productions of nature in their unimproved state.

The CHERRY-TREE. There are three sorts of cherries in this country, the black, the red, and the sand cherry; the two latter may with more propriety be ranked among the shrubs, as the bush that bears the sand cherries almost creeps along the ground, and the other rises not above eight or ten feet in height; however I shall give an account of them all in this place. The black cherries are about the size of a currant, and hang in clusters like grapes; the trees which bear them being very fruitful, they are generally loaded, but the fruit is not good to eat, however they give an agreeable flavour to brandy, and turn it to the colour of claret.

ret. The red cherries grow in the greatest profusion, and hang in bunches like the black sort just described; so that the bushes which bear them appear at a distance like solid bodies of red matter. Some people admire this fruit, but they partake of the nature and taste of alum, leaving a disagreeable roughness in the throat, and being very astringent. As I have already described the sand cherries, which greatly exceed the two other sorts both in flavor and size, I shall give no further description of them. The wood of the black cherry-tree is very useful, and works well into cabinet ware.

S H R U B S .

The Willow, Shin Wood, Shumack, Sassafras, the Prickly Ash, Moose Wood, Spoon Wood, Large Elder, Dwarf Elder, Poisonous Elder, Juniper, Shrub Oak, Sweet Fern, the Laurel, the Witch Hazel, the Myrtle, Winter Green, the Fever Bush, the Cranberry Bush, the Gooseberry Bush, the Currant Bush, the Whirtle

tle Berry, the Raspberry, the Black Berry, and the Choak Berry.

The WILLOW. There are several species of the willow, the most remarkable of which is a small sort that grows on the banks of the Mississippi, and some other places adjacent. The bark of this shrub supplies the beaver with its winter food; and where the water has washed the soil from its roots, they appear to consist of fibres interwoven together like thread, the colour of which is of an inexpressibly fine scarlet; with this the Indians tinge many of the ornamental parts of their dress.

SHIN WOOD. This extraordinary shrub grows in the forests, and rising like a vine, runs near the ground for six or eight feet, and then takes root again; in the same manner taking root, and springing up successively, one stalk covers a large space; this proves very troublesome to the hasty traveller, by striking against his shins, and entangling his legs; from which it has acquired its name.

The SASSAFRAS is a wood well known for its medicinal qualities. It
might

might with equal propriety be termed a tree as a shrub, as it sometimes grows thirty feet high; but in general it does not reach higher than those of the shrub kind. The leaves, which yield an agreeable fragrance, are large and nearly separated into three divisions. It bears a reddish brown berry of the size and shape of Pimento, and which is sometimes used in the colonies as a substitute for that spice. The bark or roots of this tree is infinitely superior to the wood for its use in medicine, and I am surprised it is so seldom to be met with, as its efficacy is so much greater.

The PRICKLY ASH is a shrub that sometimes grows to the height of ten or fifteen feet, and has a leaf exactly resembling that of an ash, but it receives the epithet to its name from the abundance of short thorns with which every branch is covered, and which renders it very troublesome to those who pass through the spot where they grow thick. It also bears a scarlet berry, which when ripe, has a fiery taste like pepper. The bark of this tree, particularly the bark of the roots, is highly esteemed by the natives for its
medi-

medicinal qualities. I have already mentioned one instance of its efficacy, and there is no doubt but that the decoction of it will expeditiously and radically remove all impurities of the blood.

The MOOSE WOOD grows about four feet high, and is very full of branches; but what renders it worth notice is its bark, which is of so strong and pliable a texture, that being peeled off at any season, and twisted, makes equally as good cordage as hemp.

The SPOON WOOD is a species of the laurel, and the wood when sawed resembles box wood.

The ALDER or ELDER, termed the poisonous elder, nearly resembles the other sorts in its leaves and branches, but it grows much straiter, and is only found in swamps and moist soils. This shrub is endowed with a very extraordinary quality, that renders it poisonous to some constitutions, which it effects if the person only approaches within a few yards of it, whilst others may even chew the leaves or the rind without receiving the least detriment from them: the poison however is not mortal, though it operates
very

very violently on the infected person, whose body and head swell to an amazing size, and are covered with eruptions, that at their height resemble the confluent small-pox. As it grows also in many of the provinces, the inhabitants cure its venom by drinking saffron tea, and anointing the external parts with a mixture composed of cream and marsh mallows.

The SHRUB OAK is exactly similar to the oak tree, both in its wood and leaves, and like that it bears an acorn, but it never rises from the ground above four or five feet, growing crooked and knotty. It is found chiefly on a dry gravelly soil.

The WITCH HAZLE grows very bushy, about ten feet high, and is covered early in May with numerous white blossoms. When this shrub is in bloom, the Indians esteem it a further indication that the frost is entirely gone, and that they might sow their corn. It has been said, that it is possessed of the power of attracting gold or silver, and that twigs of it are made use of to discover where the veins of these metals lie hid; but I am apprehensive that this is only a fallacious

cious story, and not to be depended on; however that supposition has given it the name of witch hazle.

The MYRTLE is a shrub about four or five feet high, the leaves of which are larger than those of the common myrtle, but they smell exactly alike. It bears small berries, which are generally called Bay Berries, and these are full of a gluey substance, which being boiled in water, swims on the surface of it, and becomes a kind of green wax; this is not so valuable as bees-wax, being of a more brittle nature, but mixed with it makes a good candle, which as it burns sends forth an agreeable scent.

WINTER GREEN. This is an ever-green of the species of the myrtle, and is found on dry heaths; the flowers of it are white, and in the form of a rose, but not larger than a silver penny; in the winter it is full of red berries about the size of a sloe, which are smooth and round; these are preserved during the severe season by the snow, and are at that time in the highest perfection. The Indians eat these berries, esteeming them very balsamic, and invigorating to the stomach.

stomach. The people inhabiting the interior colonies steep both the sprigs and berries in beer, and use it as a diet-drink for cleansing the blood from scorbutick disorders.

The FEVER BUSH grows about five or six feet high; its leaf is like that of a lilach, and it bears a reddish berry of a spicy flavour. The stalks of it are excessively brittle. A decoction of the buds or wood is an excellent febrifuge, and from this valuable property it receives its name. It is an ancient Indian remedy for all inflammatory complaints, and likewise much esteemed on the same account by the inhabitants of the interior parts of the colonies.

The CRANBERRY BUSH. Though the fruit of this bush greatly resembles in size and appearance that of the common sort, which grows on a small vine in morasses and bogs, yet the bush runs to the height of ten or twelve feet; but it is very rarely to be met with. As the meadow cranberry, being of a local growth, and flourishing only in morasses, cannot be transplanted or cultivated, the former, if removed at a proper season,
would

would be a valuable acquisition to the garden, and with proper nurture prove equally as good, if not better.

The CHOAK BERRY. The shrub thus termed by the natives grows about five or six feet high, and bears a berry about the size of a sloe, of a jet black, which contains several small seeds within the pulp. The juice of this fruit, though not of a disagreeable flavour, is extremely tart, and leaves a roughness in the mouth and throat when eaten, that has gained it the name of choak berry.

ROOTS and PLANTS.

Elecampane, Spikenard, Angelica, Sarsaparilla, Ginseng, Ground Nuts, Wild Potatoes, Liquorice, Snake Root, Gold Thread, Solomon's Seal, Devil's Bit, Blood Root, Onions, Garlick, Wild Parsnips, Mandrakes, Hellebore White and Black.

SPIKENARD, vulgarly called in the colonies Petty-Morrell. This plant appears to be exactly the same as the Asia-
tick

tick spikenard, so much valued by the ancients. It grows near the sides of brooks in rocky places, and its stem, which is about the size of a goose quill, springs up like that of angelica, reaching about a foot and a half from the ground. It bears bunches of berries in all respects like those of the elder, only rather larger. These are of such a balsamic nature, that when infused in spirits, they make a most palatable and reviving cordial.

SARSAPARILLA. The root of this plant, which is the most estimable part of it, is about the size of a goose quill, and runs in different directions, twined and crooked, to a great length in the ground; from the principal stem of it springs many smaller fibres, all of which are tough and flexible. From the root immediately shoots a stalk about a foot and half long which at the top branches into three stems; each of these has three leaves, much of the shape and size of a walnut leaf; and from the fork of each of the three stems grows a bunch of bluish white flowers, resembling those of the spikenard. The bark of the roots, which alone should be used in medicine, is of a bitterish flavour,

vour, but aromatic. It is deservedly esteemed for its medicinal virtues, being a gentle sudorific, and very powerful in attenuating the blood when impeded by gross humours.

GINSANG is a root that was once supposed to grow only in Korea, from whence it was usually exported to Japan, and by that means found its way to Europe; but it has lately been discovered to be also a native of North America, where it grows to as great perfection and is equally valuable. Its root is like a small carrot; but not so taper at the end; it is sometimes divided into two or more branches, in all other respects it resembles sarsaparilla in its growth. The taste of the root is bitterish. In the eastern parts of Asia it bears a great price, being there considered as a panacea, and is the last refuge of the inhabitants in all disorders. When chewed it certainly is a great strengthener of the stomach.

GOLD THREAD. This is a plant of the small vine kind, which grows in swampy places, and lies on the ground. The roots spread themselves just under the surface of the morass, and are easily

K k drawn

drawn up by handfuls. They resemble a large entangled skain of thread of a fine bright gold colour; and I am persuaded would yield a beautiful and permanent yellow dye. It is also greatly esteemed both by the Indians and colonists as a remedy for any soreness in the mouth, but the taste of it is exquisitely bitter.

SOLOMON's SEAL is a plant that grows on the sides of rivers, and in rich meadow land. It rises in the whole to about three feet high, the stalks being two feet, when the leaves begin to spread themselves and reach a foot further. Every fibre of the root has an impression upon it about the size of a sixpence, which appears as if it was made by a seal, and from these it receives its name. It is greatly valued on account of its being a fine purifier of the blood.

DEVIL's BIT is another wild plant, which grows in the fields and receives its name from a print that seems to be made by teeth in the roots. The Indians say that this was once an universal remedy for every disorder that human nature is incident to; but some of the evil
spirits

spirits envying mankind the possession of so efficacious a medicine gave the root a bite, which deprived it of a great part of its virtue.

BLOOD ROOT. A sort of plantain that springs out of the ground in six or seven long rough leaves, the veins of which are red; the root of it is like a small carrot both in colour and appearance; when broken, the inside of it is of a deeper colour than the outside, and distils several drops of juice that look like blood. This is a strong emetic, but a very dangerous one.

HERBS.

Balm, Nettles, Cinque Foil, Eye-bright, Sanicle, Plantain, Rattle Snake Plantain, Poor Robin's Plantain, Toad Plantain, Maiden Hair, Wild Dock, Rock Liverwort, Noble Liverwort, Bloodwort, Wild Beans, Ground Ivy, Water Cresses, Yarrow, May Weed, Gargit, Skunk Cabbage or Poke, Wake Robin, Betony, Scabious, Mullen, Wild Pease, Mouse Ear, Wild Indigo, and Cat Mint.

K k 2 SANICLE

SANICLE has a root which is thick towards the upper part, and full of small fibres below; the leaves of it are broad, roundish, hard, smooth, and of a fine shining green; a stalk rises from these to the height of a foot, which is quite smooth and free from knots, and on the top of it are several small flowers of a reddish white, shaped like a wild rose. A tea made of the root is vulnerary and balsamick.

RATTLE SNAKE PLANTAIN.

This useful herb is of the plaintain kind, and its leaves, which spread themselves on the ground, are about one inch and half wide, and five inches long; from the centre of these arises a small stalk nearly six inches long, which bears a little white flower; the root is about the size of a goose quill, and much bent and divided into several branches. The leaves of this herb are more efficacious than any other part of it for the bite of the reptile from which it receives its name; and being chewed and applied immediately to the wound, and some of the juice swallowed, seldom fails of averting every dangerous symptom. So convinced are the Indians
of

of the power of this infallible antidote, that for a trifling bribe of spirituous liquor, they will at any time permit a rattle snake to drive his fangs into their flesh. It is to be remarked that during those months in which the bite of these creatures is most venomous, that this remedy for it is in its greatest perfection, and most luxuriant in its growth.

POOR ROBIN's PLANTAIN is of the same species as the last, but more diminutive in every respect; it receives its name from its size, and the poor land on which it grows. It is a good medicinal herb, and often administered with success in fevers and internal weakness.

TOAD PLANTAIN resembles the common plantain, only it grows much ranker, and is thus denominated because toads love to harbour under it.

ROCK LIVERWORT is a sort of liverwort that grows on rocks, and is of the nature of kelp or moss. It is esteemed as an excellent remedy against declines.

GARGIT or SKOKE is a large kind of weed, the leaves of which are about six inches long, and two inches and half broad; they resemble those of spinage in

their colour and texture, but not in shape. Their root is very large, from which spring different stalks that run eight or ten feet high, and are full of red berries; these hang in clusters in the month of September, and are generally called pigeon berries, as those birds then feed on them. When the leaves first spring from the ground, after being boiled, they are a nutritious and wholesome vegetable, but when they are grown nearly to their full size, they acquire a poisonous quality. The roots applied to the hands and feet of a person afflicted with a fever, prove a very powerful absorbent.

SKUNK CABBAGE or POKE is an herb that grows in moist and swampy places. The leaves of it are about a foot long, and six inches broad, nearly oval, but rather pointed. The roots are composed of great numbers of fibres, a lotion of which is made use of by the people in the colonies for the cure of the itch. There issues a strong musky smell from this herb, something like the animal of the same name before described, and on that account it is so termed.

WAKE

WAKE ROBIN is an herb that grows in swampy lands; its root resembles a small turnip, and if tasted will greatly inflame the tongue, and immediately convert it from its natural shape, into a round hard substance; in which state it will continue for some time, and during this no other part of the mouth will be affected. But when dried, it loses its astringent quality, and becomes beneficial to mankind, for if grated into cold water, and taken internally, it is very good for all complaints of the bowels.

WILD INDIGO is an herb of the same species as that from whence Indigo is made in the southern colonies. It grows in one stalk to the height of five or six inches from the ground, when it divides into many branches, from which issue a great number of small hard bluish leaves, that spread to a great breadth, and among these it bears a yellow flower; the juice of it has a very disagreeable scent.

CAT MINT has a woody root, divided into several branches, and it sends forth a stalk about three feet high; the leaves are like those of the nettle or betony, and they have a strong smell of

K k 4

mint,

mint, with a biting acrid taste; the flowers grow on the tops of the branches, and are of a faint purple or whitish colour. It is called cat mint, because it is said, that cats have an antipathy to it, and will not let it grow. It has nearly the virtues of common mint.

FLOWERS.

Heart's Ease, Lilies red and yellow, Pond Lilies, Cowslips, May Flowers, Jessamine, Honeysuckles, Rock Honeysuckles, Roses red and white, Wild Hollyhock, Wild Pinks, Golden Rod.

I shall not enter into a minute description of the flowers above-recited, but only just observe, that they much resemble those of the same name which grow in Europe, and are as beautiful in colour, and as perfect in odour, as they can be supposed to be in their wild uncultivated state.

FARI-

FARINACEOUS and LEGUMINOUS
ROOTS, &c.

Maize or Indian Corn, Wild Rice,
Beans, the Squash, &c.

MAIZE or INDIAN CORN grows to the height of about five or six feet, on a stalk full of joints, which is stiff and solid, and when green, abounding with a sweet juice. The leaves are like those of the reed, about two feet in length, and three or four inches broad. The flowers which are produced at some distance from the fruit on the same plant, grow like the ears of oats, and are sometimes white, yellow, or of a purple colour. The seeds are as large as peas, and like them quite naked and smooth, but of a roundish surface, rather compressed. One spike generally consists of about six hundred grains, which are placed closely together in rows to the number of eight or ten, and sometimes twelve. This corn is very wholesome, easy of digestion, and yields as good nourishment as any other sort.

sort. After the Indians have reduced it into meal by pounding it, they make cakes of it and bake them before the fire. I have already mentioned that some nations eat it in cakes before it is ripe, in which state it is very agreeable to the palate and extremely nutritive.

WILD RICE. This grain, which grows in the greatest plenty throughout the interior parts of North America, is the most valuable of all the spontaneous productions of that country. Exclusive of its utility, as a supply of food for those of the human species who inhabit this part of the continent, and obtained without any other trouble than that of gathering it in, the sweetness and nutritious quality of it attracts an infinite number of wild fowl of every kind, which flock from distant climes to enjoy this rare repast; and by it become inexpressibly fat and delicious. In future periods it will be of great service to the infant colonies, as it will afford them a present support, until in the course of cultivation other supplies may be produced; whereas in those realms which are not furnished with this bounteous gift

gift of nature, even if the climate is temperate and the soil good, the first settlers are often exposed to great hardships from the want of an immediate resource for necessary food. This useful grain grows in the water where it is about two feet deep, and where it finds a rich muddy soil. The stalks of it, and the branches or ears that bear the seed, resemble oats both in their appearance and manner of growing. The stalks are full of joints, and rise more than eight feet above the water. The natives gather the grain in the following manner: nearly about the time that it begins to turn from its milky state and to ripen, they run their canoes into the midst of it, and tying bunches of it together just below the ears with bark, leave it in this situation three or four weeks longer, till it is perfectly ripe. About the latter end of September they return to the river, when each family having its separate allotment, and being able to distinguish their own property by the manner of fastening the sheaves, gather in the portion that belongs to them. This they do by placing their canoes close to the bunches of rice,
in

in such position as to receive the grain when it falls, and then beat it out, with pieces of wood formed for that purpose. Having done this, they dry it with smoke, and afterwards tread or rub off the outside husk; when it is fit for use they put it into the skins of fawns or young buffalos taken off nearly whole for this purpose and sewed into a sort of sack, wherein they preserve it till the return of their harvest. It has been the subject of much speculation why this spontaneous grain is not found in any other regions of America, or in those countries situated in the same parallels of latitude, where the waters are as apparently adapted for its growth as in the climates I treat of. As for instance, none of the countries that lie to the south and east of the great lakes, even from the provinces north of the Carolinas to the extremities of Labradore, produce any of this grain. It is true I found great quantities of it in the watered lands near Detroit, between Lake Huron and Lake Erié, but on enquiry I learned that it never arrived nearer to maturity than just to blossom; after which it appeared blighted, and
died

died away. This convinces me that the northwest wind, as I have before hinted, is much more powerful in these than in the interior parts; and that it is more inimical to the fruits of the earth, after it has passed over the lakes and become united with the wind which joins it from the frozen regions of the north, than it is farther to the westward.

BEANS. These are nearly of the same shape as the European beans, but are not much larger than the smallest size of them. They are boiled by the Indians and eaten chiefly with bear's flesh.

The SQUASH. They have also several species of the MELON or PUMPKIN, which by some are called Squashes, and which serve many nations partly as a substitute for bread. Of these there is the round, the crane-neck, the small flat, and the large oblong Squash. The smaller sorts being boiled, are eaten during the summer as vegetables; and are all of a pleasing flavor. The crane-neck, which greatly excels all the others, are usually hung up for a winter's store,
and

and in this manner might be preserved for several months.

I am sensible that I have not treated the foregoing Account of the natural productions of the interior parts of North America with the precision of a naturalist. I have neither enumerated the whole of the trees, shrubs, plants, herbs, &c. that it produces, nor have I divided them into classes according to their different genera after the Linnæan method: the limits of my Work, in its present state, would not permit me to pursue the Subject more copiously. However, if the favour of the Public should render a future edition necessary, as I trust, from the number of Subscribers who have already favoured me with their Names, will be the case, I then propose to enlarge it considerably, and to insert many interesting particulars and descriptions, which the size of the present Edition obliges me to curtail or entirely to omit.

A P P E N -

ANTONII STORCK,
SAC. CÆS. REG. APOST. MAJEST. CON-
SILIARII AULICI, ARCHLATRI, IN NOSOCO-
MIO CIVICO PASMARIANO PHYSICI, ET
PLURIUM SOCIETATUM MEMBRI &c.

LIBELLUS
DE
USU MEDICO
PULSATILLÆ
NIGRICANTIS.



VINDOBONÆ,
TYPIS JOAN. THOM. NOB. DE TRATTNERN,
CÆS. REG. AULÆ TYPOGR. ET BIBLIOP.

MDCCLXXI.



PRÆFATIO.

Quamvis Pulsatilla nigricans nullum huc usque locum inter herbas officinales obtineat, eam tamen ad illas jure merito pertinere, experimenta, in hoc libello recensita, evincunt.

His enim comprobatur: Pulsatillum nigricantem esse remedium maxime innocuum, eamque tuto posse ægrotantibus exhiberi & prodesse plurimum in morbis pertinacissimis.

Utinam primævi medicinæ parentes, & primi rei Herbariæ Scriptores tot plantis nomen veneni non imposuissent! Nam inde contigit, ut omnes fere medici, ad nostra usque sæcula, harum usum sollicite evitaverint, & partem medicinæ maxime necessariam neglexerint, relinquerintque incultam.

Venena terrent ægros & inscios, cur autem medicos terreant, ignoro.

Ego profecto! mihi persuasum habeo, in prudentis medici manu nullum dari venenum; Etenim is, ratione & experientia edoctus, debet novisse methodum, qua parentur, dosimque, qua exhibeantur medicamenta efficacia; debet præterea novisse morbum, in quo recte conveniunt & conferunt, & symptomata, quæ similia remedia exposcunt; debet etiam novisse tempus & stadium morbi, in quo indicantur.

His

His cognitis medicus certo errare nunquam potest, nec noxam adferre ægrotanti.

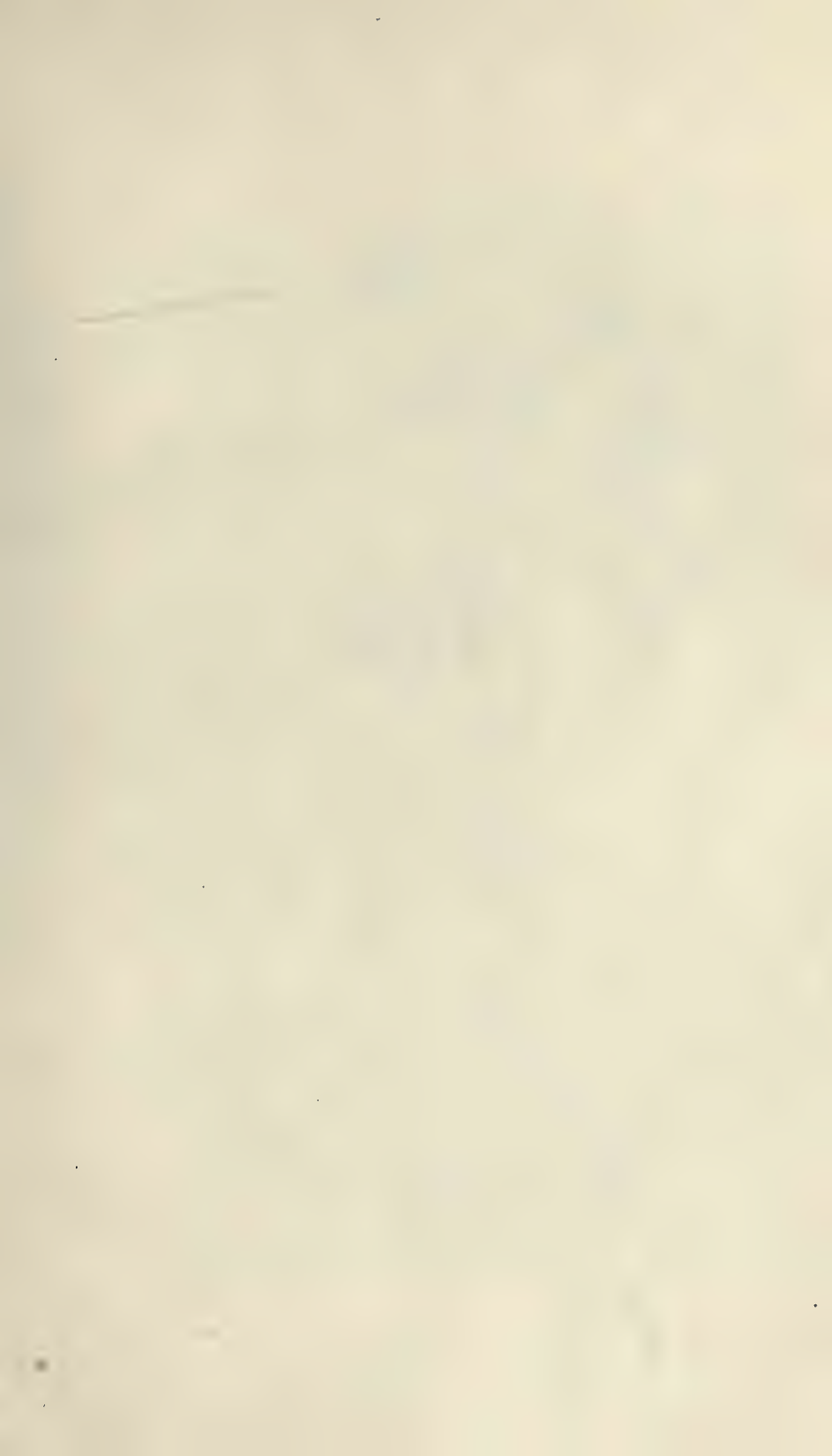
Pulsatilla nigricans videtur magnam virtutem, morbos oculorum antiquos curandi, possidere.

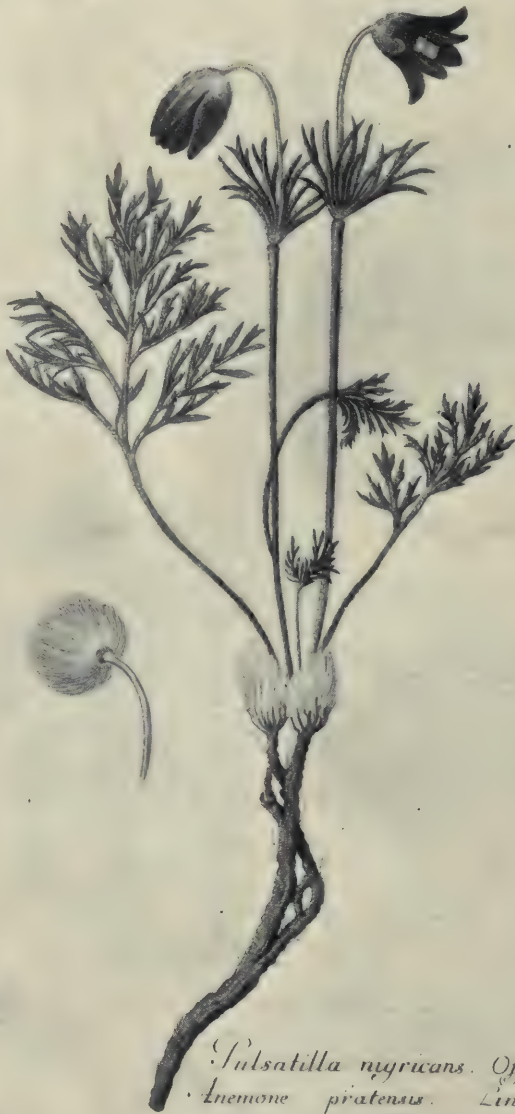
Ejus usu multi visum, jam a pluribus annis deperditum, recuperarunt; aliis levamen adtulit, morbum vero integre vincere non potuit; pauci erant, in quibus nullam prorsus mutationem produxit; nemini autem nocuit.

*Pluribus quidem experimentis rem ad majorem perfectionis gradum deducere potuissem, sed appropinquat tempus vernale, quo illico hæc planta sese extollit, & floret; hinc credidi, congruum esse & utile ejus virtutem nunc manifestare & annunciare medicis, ut debito tempore copiam colligere, & in usus medicinæ parare possint, & egen-
tibus recta methodo exhibere.*

Ad mea experimenta sua contulerunt, Ferdinandus Leber Chirurgiæ professor; Dominus Faucken physicus ad Sanctum Marcum, & Dominus Rechberger chirurgus in eodem magno Nosocomio ad Sanctum Marcum.







Pulsatilla nigricans. Offic
Anemone pratensis. Linnæi



D E
PULSATILLA
NIGRICANTE.

Pulsatilla nigricans. Off.

Anemone pratensis. Linn. Syst. nat. T. 2. Pag. 375.
Edit. ult.

Anemone pratensis. Jacquin. Enum. Stirp. Vindob.
Pag. 97.

Pulsatilla flore minore nigricante. Bauh. pin. 177.

Pulsatilla flore clauso. Lob. ic. p. 283.

Pulsatilla secunda. Boerh. ind. plant. 2. p. 1. pag. 39.

Gall Coquelourde noiratre. Angl. Blackish Anemone or Wind-Flower. Bat. Keuken-Sehelle.
Germ. Schwärzliche Küchensehelle; schwärzliche Windblume

D E S C R I P T I O P L A N T Æ .



*R*adix est oblonga, rugosa, inæqualiter crassa, perennis, fibrosa; hæc primo vere emittit *Folia* solummodo radicalia bipinnata, *foliolis*

conserta angustioribus, elongatis, acuminatis, inæqualiter divisis, obscure virentibus. Antequam *foliola* penitus evolvantur, exsurgit *caulis* unus alterve teres, exfusco viridis, cinctus *Involucro* nonophyllo, profunde multoties ac inæqualiter diviso, externe subfusco, interne obscure viridi; pars *caulis*, quæ supra involucrum eminet, *Florem* gerit nudum, hexapetalum, fere clausum, coloris saturatoris & quasi nigricantis! fundum floris *stamina* occupant *filamentis* numerosis, flavis, capillaribus, *corolla* dimidio brevioribus, *antheris* didymis, erectis; *Germina* in capitulum collecta *stylis* acuminatis, saturate purpureis terminantur, & in *semina* abeunt acuminata, longiori cauda, pilosa, ornata.

Crescit hæc planta passim in locis apricis; floret mense Aprili.

Omnes ejus partes, paululum masticatæ, linguæ acerrimum, urentem, & diu per-

persistentem saporem imprimunt; sola radix mitior est.

Datur adhuc alia *Pulsatillæ* species, quæ *Pulsatilla vulgaris* dicitur, seu *Anemone Pulsatilla Linnæi*: hæc ob copiosam, densamque pubem, qua undique large tegitur, quasi ex viridi canescit; *Foliola* habet latiora; *Florem* gerit majorem, erectum, magis apertum, pallide violaceum: cæterum omnes plantæ partes, etiam diutius masticatæ, acres non sunt, & linguam sapore nauseoso ac leviter amaricante afficiunt. Aqua inde destillata vix non insipida est.

Dum hæc *Pulsatilla vulgaris* defloruit, tunc incipit nostra *Pulsatilla nigricans* florere, quam, ut colligentes a priori rite distinguant, & seligant, oro; etenim earum virtutes non videntur esse æquales.

Egregius ac Doctissimus *Jacobus Well* Pharmacopæus, ad ursum nigrum, mihi ex *Pulsatilla nigricante* paravit aquam destillatam & extractum.

Sumsit is plantam totam cum floribus, abjecta tamen radice, conscissam imposuit cucurbitæ vitreæ, & adfudit octo partes aquæ fontanæ, & apposito capitello, adjunctoque excipulo ad balneum arenæ medietatem abstraxit.

Hocque abstractum asservavit sub nomine *aquæ Destillatæ Pulsatillæ nigricantis*, quæ admodum acris & penetrans est.

Reliquum adhuc paulisper decoxit, herbam aliquantulum expressit, percolavit, & colaturam ad extracti mollioris consistentiam lenissimo calore fecit evaporari.

Extractum hocce linguæ impositum in principio leniter adstringere videtur, dein pungentes dolores excitat, & tandem ardorem diu permanentem producit.

Confeci ex hoc extracto binos pulveres; primum, qui leviozem extracti dosim continet, nominavi pulverem *A*,

se-

secundum vero pulverem *B.*, qui duplam extracti dosim recipit.

℞. Extracti *Pulsatillæ nigricantis* gr. VII.

Sacchari albi dr. i.

m. f. pulv. tenuissimus diu terendo
in mortario marmoreo.

℞. Extracti *Pulsatillæ nigricantis* gr. XIV.

Sacchari albi dr. i.

m. f. pulvis tenuissimus diu terendo
in mortario marmoreo.

Ex pulvere *A.* assumsi quinque grana mane, & eandem dosim vesperi repetii, idque hac ratione præstiti per triduum; & quoniam nullum in me effectum percepi, sumsi grana decem mane & totidem tempore vespertino.

Ex hac dosi sensi semper aliquot minutis ab assumptione dolorem lancinantem in oculo dextro, in quo magnam contusionem biennio abhinc passus fui; quum efrænes equi currum, cui insidebam, violento concussu invertabant; in reliquo
au-

autem toto corpore nil prorsus incommodi animadverti.

Postquam per quinque dies quotidie grana viginti hujus pulveris deglutivissem, nullamque inde in me functionem turbari, aut lædi observassem, credidi: tuto & omni jure hunc pulverem posse exhiberi ægrotantibus.

Omnem curam parva pulveris *A.* dosi inchoavi, & didici deinde experimentis iteratis, ægros ejus magnam quantitatem sensim sine omni molestia & noxa ferre. Aliqui acceperunt per diem unam, duas, tresve Drachmas.

Dum dofis pulveris *A.* ad drachmam mediam vel drachmam integram augebatur, exhibui tunc pulverem *B.*, ut æger sub minori volumine eandem tamen extracti seu medicamenti portionem acquireret.

Ex herba sicca paravi infusum sequenti modo:

Her-

Herbæ *Pulsatillæ nigricantis* dr. i.
consciss. infunde s. q. aq. fervid.
per $\frac{1}{4}$ hor. vase clauso dein colaturæ lib. i.

adde

Sacchari q. s. ad gratiam.

S.umat æger ter quotidie vasculum unum unciarum trium vel quatuor hujus infusi.

Reddidi hoc infusum fortius, dum ad ejusdem colaturæ quantitatem dr. ij. vel dr. iij. vel unc. B. adhibui, idque ægri sine molestia tulerunt.

Hoc infusum interne, & externe applicatum in fædis & sordidis ulceribus optimos quandoque præstitit effectus.

Tentavi id etiam in tinæa capitis antiqua admodum, verum cutis inflammabatur, caput vehementer doluit, unde ab ulteriori experimento abstinendum judicavi.



EXPERIMENTA.

EXPERIMENTUM I.

Fœmina, 35. annorum, a quinque annis & dimidio brachium sinistrum non poterat movere; erat enim totum rigidum, & emaciatum.

Causam mali rejecit in morbum rheumaticum, quo olim per totum corpus laboravit, & quo disparente brachium cœpit immobile fieri, & rigescere.

Remedia interna & externa hucusque nil profuerunt; ipsa vis electrica dolorem magnum produxit, sed malum non emendavit.

Huic exhibui mane drachmas duas aquæ destillatæ *Pulsatillæ nigricantis*; eandem dosim vesperi iteravi. Primis binis diebus nullam sensit mutationem.

Unde tertio die suasi, ut sumeret mane unciam dimidiam, & totidem ad meridiem & vesperi.

Per-

Percepit tunc vagos & lancinantes in brachio dolores, & noctu pruritus ingentem.

Post octiduum cœpit digitos paululum movere, & dolores fuerent frequentiores.

Dedi dein ter de die unciam integram hujus aquæ, & jussi, ut mane & vesperi brachium totum probe fricaretur pannis laneis, & dein lavaretur aliquamdiu eadem aqua destillata ex *Pulsatilla nigricante*.

Intra binas septimanas potuit brachium elevari, & digiti movebantur liberius.

Debito tempore rediit fluxus menstruus, sed longe copiosior, ac alias esse solebat.

Quamdiu menstrua fluebant, ægra nec dolorem, nec pruritus sensit in brachio; his autem finientibus novus & valde molestus ortus est pruritus & compa-ruerunt pustulæ rubræ, copiosissimæ, quæ dein pure replebantur.

Dum

Dum primæ pustulæ exsiccatae sunt, & in squammas secesserunt, novæ iterum multæ eruperunt; hoc aliquoties eodem ordine contigit, & ægra semper inde levamen habuit, atque spatio trium fere mensium poterat brachium libere in omnem partem movere, & eo uti ad solitos labores bene peragendos.

Eandem remedii dosim usque ad finem curationis semper assumsit, nec abstinuit, dum menstrua fluebant.

Neque lotio & lenis frictio brachii fuit intermissa, licet pustulæ suppurantes doluerint acriter & cutis superficies fuerit inflammata; quoniam his externe irritatis motus brachii semper factus est melior & liberior. Unde has molestias ægra patienter tulit.

Primis diebus ex usu hujus remedii urina copiose educebatur, & ægra subinde levem vomendi conatum percepit; cæteroquin de nullo, incommodo conquesta fuit.

Ex-

EXPERIMENTUM II.

Sacerdoti, 63. annorum, qui paralyysi brachii & pedis dextri jam a decem annis laboravit, dedi mane & vesperi unciam dimidiam aquæ destillatæ *Pulsatillæ nigricantis*; spatio octidui nil mutatum fuit.

Sumsit dein ter de die unciam dimidiam, mox autem nausea ipsum prehendebat & vomendi conatus.

Suasi, ut dosim remedii iterum minueret, verum nec exiguam quantitatem amplius potuit deglutire, quin vomitus moveretur; unde erat ab hoc remedio abstinendum.

EXPERIMENTUM III.

Fœmina, 28. annorum, ante triennium a fœdis venereis ulceribus curata fuit, ab eo autem tempore sensit in omnibus membris & articulis continuos & dilacerantes dolores, qui quotidie ver-

B

sus

sus horam quartam matutinam multa cum vehementia exacerbabantur.

Appetiit quidem, & reliquæ functiones bonæ erant, sed corpus mansit debile & emaciatum.

Quæcumque adhibita remedia nil levaminis adtulerunt, nec juverunt balnea.

Huic dedi mane & vesperi unciam dimidiam aquæ destillatæ *pulsatillæ nigricantis*, quam bene tulit; urina inde copiose fluxit, & primis diebus aliquoties solvebatur alvus.

Sexto die noctu multum sudavit, & sudor male olebat, dolores minuti sunt, & somnus tranquillus usque ad horam sextam matutinam duravit.

Octavo die catamenia prodierunt, quæ solito longe copiosiora erant; nec dolor colicus, qui alias semper ea præcesserat, tunc advertebatur.

Remedium etiam tempore catameniorum fuit continuatum; unde sensim redierunt vires, habitus corporis iterum in-

cre-

crevit, tandem dolores cessarunt, & finita quinta septimana sanitas fuit bona.

EXPERIMENTUM IV.

Vir, 34. annorum, Gonorrhæa venerea neglecta, & inveterata jam diu vexabatur; præterea testiculus dexter durus fuit, & mole longe major sinistro.

Sumsit mane & vesperi unciam dimidiam aquæ destillatæ *Pulsatillæ nigricantis*; primo statim die oriebatur intollerabilis fere ardor urinæ; altero die idem ardor continuavit, & multus ichor fœtidus exstillavit ex urethra.

Tertio die æger in dimittendo urinam tantum sensit dolorem, ut fere in animi deliquium ceciderit; præscripsi tunc saturatum ex herba althæa decoctum, ut copiose id biberet tota die, nec tamen remedii alterius usum interromperet.

Quarto die ardor longe minor fuit, ichoris stillicidium autem adhuc erat copiosius ac die præcedenti.

Quinto die omnia fuerunt mitiora, appetitus bonus, noctes tranquillæ.

Spatio trium septimanarum usu continuo ejusdem remedii & decocti emollientis gonorrhæa fuit integre curata, sed testiculus induratus permansit in eodem statu.

EXPERIMENTUM V.

Vidua, 42. annorum, tophos venereos in osse frontis, ad sternum, & utramque tibiā habuit, & dolores vehementes in omnibus artubus, qui vesperi semper valde exacerbabantur; oculo dextro jam a viginti annis nil vidit, quoniam cornea tota transparens panno erat Obducta; menstruo fluxu jam a binis & dimidio annis caruit.

Exhibui ei mane & vesperi unciam dimidiam aquæ destillatæ *Pulsatillæ nigricantis*, quam sumsit per octiduum sine effectū; id solum sibi observare visa est, lucem se quamdam confusam oculo, quo
jam

jam per viginti annos nil vidit, percipere.

Auxi tunc dosim, & dedi ter quotidie unciam dimidiam ejusdem aquæ.

Post octiduum rediens dixit: dolores nocturnos esse minores, seque posse oculo suo dextro jam colores distinguere.

Examinando tophos, inveni eos in fronte longe minores, molliores; reliqui autem non sunt mutati; pannus in oculo erat tenuis, & hinc inde transparent.

Jussi, ut eadem dosi continuaret; quo contigit, ut spatio trium & dimidii mensium visum in oculo, jam a tot annis obfuscato, recuperaverit, ut dolores nocturni cessarint, disparueruntque topi in fronte; verum reliqui nec mole nec durtie minuebantur; erant tamen absque dolore.

His ægra contenta abstinuit a remedio, ex cujus usu nil insoliti unquam observavit.

EXPERIMENTUM VI.

Ancilla, 26. annorum, tophis venereis valde magnis a quinque mensibus laborans in utraque tibia, dolores nocturnos enormes patitur, & extenuatur fluore albo.

Tentavi eandem aquam, exhibendo mane unciam dimidiam, & totidem vespere.

Intra octiduum nil levaminis sensit; suasi, ut ter de die sumeret unciam dimidiam; inde videbantur dolores nocturni leviores per aliquot dies; verum paulo post eadem cum violentia redierunt.

Exhibui tunc ejus aquæ unciam integram mane, ad meridiem, & vesperi, ita ut quotidie tres uncias deglutiverit; ast nec inde malum emendatum fuit, licet per sex septimanas diligenter & magna cum constantia eam assumerit.

Hinc ut ab hoc remedio abstineret jussi.

Præ-

Præscripsi dein saturatum florum *Flammulæ Jovis* infusum, ex quo, spatio trium mensium, integre convaluit, pinguis facta est, & nupsit.

EXPERIMENTUM VII.

Ancilla, 14. annorum, in tota facie, collo, & pectore ulcera habuit fæda, & fætido ichore manantia; in hac tentavi pulverem *A.*, exhibendo mane grana decem, totidem ad meridiem, ac vesperi; ulcera jussi bis quotidie infuso florum sambuci ablui, & dein tegi emplastro diapompholygos.

Primis quatuordecim diebus omnia videbantur mutari in melius; copia ichoris minuebatur, & margines ulcerum futuram cicatricem promittebant.

Verum hæc iterum evanuerunt subito, & ulcera redierunt æque mala, licet ægra quotidie drachmam integram, dein drachmam unam & dimidiam hujus pulveris assumeret per multas septimanas.

Exhibui dein ter quotidie vascula bina saturati infusi *flammulæ Jovis*, & bis quotidie conspersi ulcera pulvere ejusdem plantæ, & texti emplastro diampompholygos; felix inde sequebatur successus; etenim spatio binorum mensium ulcera erant firma cicatrice clausa, & sanitas fuit bona.

EXPERIMENTUM VIII.

Homo, 21. annorum, a pessimis velipenduli & palati ulceribus venereis curatur; manet autem ipsi pertinax admodum ophthalmia, & opacitas in utroque oculo; dextro quidem oculo confuse quædam videre potuit, in sinistro autem albugo visum penitus impedivit.

Parotis dextra jam a longo tempore scirrhusa fuit & magna.

Remedia omnis generis mercurialia, antimonialia, aliaque interna & externa, longo & diligenti usu applicata, nihil juverunt; æger potius inde vires prosterni,

visum diminui, & appetitum deleri, noctesque inquietas reddi conquerebatur.

Ideo dabantur ipsi grana viginti pulveris *A.* mane & totidem vesperi.

Primis octo diebus magnus in oculis dolor ortus est, & copiosissime plorabant oculi.

Data dein fuit ter quotidie similis dosis ejusdem pulveris, & inde sequebatur multa salivatio, qua prodiit gluten tenacissimum.

Salivatio duravit per aliquot dies, & visus in oculo dextro melior factus est, & ad oculum sinistrum cœpit lumen obscure penetrare.

Cessante salivæ fluxu insurgebat diarrhæa copiosa, fœtidissima; eadem nihilominus dosi & eodem remedio continuavimus, quoniam æger nequaquam debilis reddebatur, & in oculis magnum sentiebat levamen.

Sponte desiit diarrhæa, & tunc caput cœpit vehementer dolere per biduum.

Spatio quinque septimanarum oculo dextro omnia sat bene distinxit, isque fere totus serenus fuit; in sinistro lumen magis percipiebatur, & cœpit manifeste dissipari albugo.

Aucta tunc dosis remedii fuit, exhibendo ter quotidie drachmam dimidiam ejusdem pulveris.

Ex hac dosi iterum novus in oculis dolor sequebatur, & dixit æger: se sentire ac si quis cultro aliquid in oculis abraderet, nec tamen oculi rubebant, lachrymæ multæ exstillarunt, & fluxit urina solito longe frequentior & copiosior.

Post aliquot dies dolores in oculis remiserunt, cœpit emolliri parotis schirrhosa, & finito secundo mense visus iterum melior fuit.

Dedimus tunc ter quotidie drachmam dimidiam pulveris *B.* & hac dosi in quartum mensem pereximus, quo tempore æger utroque oculo bene omnia videre po-

potuit, & simul a parotide scirrhusa integre curatis fuit.

EXPERIMENTUM IX.

Vir, 35. annorum, crurum paralyti, & ingenti ad os sacrum dolore jam a longo tempore laborat; varia & maxime efficacia remedia nil juvant.

Dantur ei grana XV. pulveris *A.* mane & totidem vesperi.

Primis sex diebus dolorem sat acutum in ventre sensit quotiescunque hunc pulverem assumsit, is autem ultra mediam horam nunquam duravit.

Septimo die afficiebatur diarrhæa, & tunc dolores ventris cessarunt.

Postquam per 20. dies usus erat hoc pulvere, percepit dolores arduos, lancinantes & vagos a digitis pedum ad inguina usque; præterea nil mutatum fuit.

Dedimus tunc grana XX. ejusdem pulveris bis per diem, & inde aucti sunt dolores in cruribus & præsertim in digitis pedum.

Post

Post binas septimanas potuit crura aliquantulum movere, surrexit e lecto, ambulare tamen non poterat.

Exhibebatur tunc bis per diem drachma dimidia pulveris *A.* & dolores in cruribus aucti sunt.

Octiduo post dolores ad os sacrum vehementes adeo fiebant, ut somnum impederint.

Sumsit tunc ter de die grana XX. pulveris *B.*, & mox haimorrhoides cœperunt copiose fluere per triduum.

Finito haimorrhoidum fluxu dolores ossis sacri evanuerunt, & ii in cruribus multum sunt diminuti.

Dedimus tunc ter quotidie grana XXX. pulveris *B.* qua dosi jam per aliquot septimanas continuat, & dolores in cruribus cessant, æger surgit e lecto, ambulat solus, sed valde adhuc est debilis.

Ex-

EXPERIMENTUM X.

Vir, 48. annorum, ulcera venerea in faucibus & lingua tota habet, quæ remediis antevenereis non solum non cedunt, sed serpunt semper, & vicinas partes magis in latum & profundum corrodunt.

Tentavimus pulverem *A.*, exhibendo ter quotidie grana viginti.

Per quinque dies nullam vidimus in ulceribus mutationem, sed urina ingenti copia profluxit.

Dedimus tunc ter quotidie grana XXX. ejusdem pulveris, & sensim videbantur puriora fieri ulcera.

Demum auximus remedii dosim præbendo ter quotidie grana XXX. pulveris *B.*, & hac dosi æger intra quatuor septimanas integre curatus est.

EXPERIMENTUM XI.

Homo, 30. annorum, ex apertis tumoribus Lymphaticis ulcera habuit magna

gna ad scapulam sinistram, & ad cubitum brachii dextri, genu sinistrum tumuit, & erat immobile.

Ulceræ tantam seri copiam fundebant continuo, ut æger cæperit contabescere, licet usus fuerit optimis remediis, & diæta lactea.

Præ nimio in genu dolore nec pedi insistere, & minus adhuc ambulare potuit.

Exhibuimus ei pulverem *A.*, incipiendo a granis XV. mane, todidem ad meridiem, & vesperi, sensim auximus dosim, donec ter quotidie drachmam integram hujus pulveris absumserit.

Primis diebus sensit dolorem in abdomine ex assumpto pulvere, postea autem nil amplius incommodi percepit, nec ulla alia in corpore mutatio contigit.

Spatio trium mensium ulcera sunt firmiter consolidata, tumor ad genu fuit multum diminutus, rediit quædam in genu nobilitas, æger ambulat, & recuperat vires naturales.

Ex-

EXPERIMENTUM XII.

Ancilla, 24. annorum, ulcus habet fœdissimum in lingua, quo lingua fere tota a basi ad apicem usque bifurcata, & erosa fuit.

Per multos menses laudatissimis usa est remediis; verum nec mali limites poterant coerceri, nec ullum unquam levamen observabatur.

Spatio autem quinque septimanarum ex usu pulveris A. non solum ulcus purum fuit redditum, sed & replebatur pulchra carne, & totum bona cicatrice obducebatur; in apice solummodo levis adhuc excoriatio superest, ad quam destruendam penitus eodem adhuc pulvere parva dosi utitur.

Vires autem habet optimas, & solita servitia omni cum alacritate & constantia peragit.

In principio ex usu pulveris tormina sensit; dein autem sequebatur alvi flu-

xus

xus, qui omnem ventris dolorem sustulit.

Observavit quoque ægra urinam longe copiosius ab hoc pulvere moveri.

Menstrua ipsi redierunt solito tempore, & sub usu pulveris erant longe abundantiora, & per plures dies durarunt.

EXPERIMENTUM XIII.

Fœmina, 34. annorum, ulcere venereo & carie ossis frontis laborat.

Remedia antivenerea diu applicata vix ullum auxilium adferunt.

Pulvis autem *B.* spatio trium mensium cariem destruxit, induxitque firmam & bonam cicatricem.

EXPERIMENTUM XIV.

Ancilla, 25. annorum, gerit a longo tempore tumorem lymphaticum ad articulum genu dextri, qui a perito chirurgo lanceola fuit pertusus, & effluxit multa lymphæ turbida.

Fa-

Facta incisione tumor concidit; verum lymphæ stillicidium continuat, genu dolet multum, & ægra incipit contabescere.

Præter alia remedia sumsit decoctum corticis peruviani cum lacte, & externe applicabatur cataplasma ex herbis resolutivibus, & aqua vegeto-minerali *Gouldardi*; malum autem nequaquam fuit emendatum, & genu iterum magis intumuit.

Datus igitur fuit pulvis *B.*, quo intra paucos dies mitior fiebat dolor in genu, & ægra potuit dormire.

Sensim quoque minuebatur lymphæ stillicidium, genu detumuit, dolores cessarunt.

Tandem spatio binorum mensium consolidatum fuit ulcus, ægra ambulat sine omni dolore, recuperat vires, genu adhuc paulisper tumet.

Sub usu pulveris ægra advertit urinam solito copiosiore fieri, & alvum habuit laxam; præterea nil insoliti observavit.

EXPERIMENTUM XV.

Ancilla, 17. annorem, fluore albo venereo, condylomatibus ad pudenda, ulceribus faucium & linguæ pessime afficitur.

Consuetis remediis tolluntur condylomata, sistiturque fluor albus; ulcera autem permanent æque sordida, & serpunt continuo.

Datur pulvis A., & spatio unius mensis ulcera omnia sunt optime curata, & rediit robusta sanitas.

Urinam primis diebus abundantius moveri sensit ægra ex usu hujus pulveris, aliud nihil insolidi accidit.

EXPERIMENTUM XVI.

Fœmina, 28. annorum, oculo sinistro jam ab aliquot annis nil videt, nec lumen distinguit, quoniam pannus crassus totam corneam transparentem occupat.

Re-

Remedia interna & externa juvant nihil.

Data ideo fuerunt grana XX. pulveris *A.* mane, totidem circa meridiem, & vesperi.

Primis statim diebus enormes in oculo affecto dolores ægra conquerebatur, quotiescunque hunc pulverem assumsit.

Hi vero sensim mitiores facti sunt, & tandem cessarunt.

Decimo quarto die pannus videbatur tenuior, & ægra lumen optime discernebat a tenebris.

Exhibebantur tunc ter de die grana XV. pulveris *B.*, & hæc dosis ad curationem perficiendam suffecit.

Etenim spatio binorum fere mensium pannus evanuit, ægra eo oculo omnia vidit, & distinxit.

Præter dolores in oculo affecto, quos primis diebus ægra patiebatur, nullam aliam mutationem in corpore suo percepit.

EXPERIMENTUM XVII.

Ancilla, 25. annorum, tophum venereum habuit ad articulum sinistrum maxillæ inferioris; hic in suppurationem abiit, & solitis remediis ulcus, inde ortum, curabatur; remansit tamen quidam tumor, & dolor ingens in parte læsa, & maxillæ motus omnis fere erat impossibilis.

Datur pulvis *A.*, unde in principio dolores augentur, & ægra cogitur fere omni momento urinam dimittere.

Post decem dies maxilla fit mobilior, dolores autem sunt adhuc magni.

Spatio sex septimanarum cessant dolores, tumor evanescit, maxilla liberius movetur, & ægra cibos suos sine molestia masticat, & deglutit.

EXPERIMENTUM XVIII.

Puella, 14. annorum, amaurosi laborat in utroque oculo, & præter lumen confusum nil videt, pupillæ sunt dilatatæ, immobiles.

Dan-

Dantur ter quotidie grana XV. pulveris *A.*, unde sensit in oculis validos dolores.

Decimo quarto die jam quædam videre potuit, & pupillæ erant mobiliore.

Spatio binorum fere mensium visus integer rediit, pupillæ factæ sunt naturales, & optime mobiles.

Hæc puella primis tribus septimanis ex usu hujus pulveris quotidie bis terve purgata fuit, nec tamen se debilem inde sensit; cæteroquin de nulla re conquerebatur.

EXPERIMENTUM XIX.

Puella, 15. annorum, albuginem habet in utroque oculo; videt quidem, sed nec colores nec objecta potest distinguere.

Varia applicata collyria, aliaque penetrantissima ac solventia remedia interne adhibita malum nequaquam emendant.

Demum sumsit ter de die grana XV. pulveris *A.*, unde in principio magnos in oculis dolores sensit, & levi diarrhæa laboravit, post paucos autem dies cœpit visus emendari, & spatio sex septimanarum omnis albugo disparuit; & oculus dexter fuit perfecte curatus; sinister autem fuit adhuc debilis; hinc pergit in usu ejusdem pulveris, & spes est: fore ut is quoque integrum suum robur recuperet.

EXPERIMENTUM XX.

Fœmina, 39. annorum, a 14. annis, amaurosi laboravit in oculo dextro, & sinister oculus eodem malo afficiebatur a sesquianno.

Misera nil potuit videre, nec diem a nocte discernere, nec sola ambulare.

Postquam multa adhibuisset remedia sine omni effectu, sumsit tandem pulverem *A.*

Dolores validissimi, dilacerantes, perterebrantes & lancinantes in oculis a principi-

cipio orti sunt, & cœperunt oculi vehementer plorare.

Post tres septimanas proruperunt menses copiosi, qui jam ab aliquot annis retinebantur.

Post sex circiter septimanas cœpit lumen clare distinguere, & pupillæ in utroque oculo fiebant mobiles.

Quinque nunc menses finiti sunt, quibus utitur hoc pulvere, & oculo sinistro objecta videt, colores distinguit, & sola per plateas ambulat; dexter autem oculus male se habet, licet pupilla sit mobilior, & luminis sensus penetret; nullus autem color discernitur, nec figura objecti.

Ulteriori autem usu hujus pulveris speramus hunc quoque oculum bonum futurum, cum jam quædam in melius mutatio observetur.

Ægra autem est quam contentissima, quoniam uno oculo videt, & sola ambulare potest.

Menstruorum fluxus ipsi omni tertia septimana redit; reliquæ corporis actiones sunt quam sanissimæ.

EXPERIMENTUM XXI.

Fœmina, 33. annorum, primis diebus puerperii summis in mamma dextra doloribus afficitur; mamma tumet, dura est, rubet.

Applicatis bonis remediis dolor mammarum cessat, rubedo disparet, durities emollitur, sed mox vehementissimus dolor occupat aurem utramque, & altero die pus effluit ex utroque meatu auditorio, & dolor remittit.

Hic puris fluxus durat per quinque dies, & tunc sponte sistitur.

Triduo post conqueritur ægra de tensione in oculis; dicit sese objecta non rite videre; tandem perit totus visus, & oritur amaurosis in utroque oculo.

Applicata vesicantia ad nucham & post aures, data remedia purgantia, aliaque de-

derivantia, solventia, discutientia &c., nil levaminis adferunt, & malum durat per septem annos.

Nunc sumit per tres & dimidium menses pulverem *A.* & jam sola ambulat, & incipit objecta etiam minora discernere.

In principio magnos in oculis dolores ex usu hujus remedii passa est.

Menstruorum fluxus semper bonus & regularis fuit.

EXPERIMENTUM XXII.

Ancilla, 20, annorum, ante medium annum laboravit ophthalmia inflammatoria in oculo sinistro, quæ in suppurationem abiit.

Pus corneæ laminam anteriorem penetravit, & relinquebatur inde crassa cicatrix, & tota cornea fuit opacata, atque ægra eo oculo nil poterat videre.

Cum incassum tentata fuissent plurima remedia, tandem dabatur pulvis *A.*; cujus uso spatio binorum mensium cornea

serena & pellucida facta est, cicatrix evanuit, & ægra visum integre recuperavit.

Huic ægræ retinebantur menses jam ab integro fere anno, qui mox ab uso hujus pulveris comparuerunt copia bona, & observarunt deinceps semper debitum ordinem, & solitam periodum.

EXERIMENTUM XXIII.

Mulier, 43, annorum, ex partu difficili afficitur amaurosi utriusque oculi, & jam a binis fere annis nil videt.

Exhibetur ei pulvis *A.*, qui in principio ingentes in oculis dolores produxit; spatio autem septem septimanarum tantum boni præstitit, ut ægra jam rite per agat labores domesticos, & sola possit per plateas incedere.

EXPERIMENTUM XXIV.

Mulier, 40. annorum, dextro oculo nil videt, quoniam lens crystallina grisea est, & penitus opaca.

Uti-

Utitur nunc pulvere *A.* per sex septimanas, & lens fit tenuior, & ægra eo oculo jam quædam videt, distinguit.

EXPERIMENTUM XXV.

Juvenis, 22. annorum, visum in utroque oculo adeo debilem habet, ut characteres majoris etiam magnitudinis legere amplius non possit.

Penetrantissima ipsi adhibita sunt remedia sine omni effectu; nunc per sex septimanas sumit pulverem *A.*; & jam comode legit impressos characteres, & reliqua omnia objecta melius videt.

EXPERIMENTUM XXVI.

Vir, 42, annorum, casu fortuito sibi vulnus inflixit in medio corneæ oculi dextri; magna sequebatur inflammatio, quæ repetitis venæ sectionibus, aliisque remediis derivantibus ac antiphlogisticis mitigata fuit, verum mansit fæda cicatrix, & crassa opacitas in tota cornea.

A variis varia collyria, aliaque remedia applicabantur; morbus autem semper in pejus mutabatur.

Nunc per tres menses usus est pulvere *A.*, & vix amplius cicatricis minimum vestigium superest, cornea tota optime pellucet, & oculus objecta perfecte videt.

EXPERIMENTUM XXVII.

Puer, 8. annorum, ante binos annos variolis laboravit, & his superatis oriebatur inflammatio in utroque oculo, qua disparente remansit opacitas in tota cornea oculi dextri, & sensim formabatur pannus crassus; in oculo sinistro observatæ sunt variæ maculæ albæ, quæ visum turbarunt.

Spatio binorum & dimidii mensium usu pulveris *A.*, oculi ambo perfecte sunt curati.

Ex-

EXPERIMENTUM XXVIII.

Juvenis, 22. annorum, a septem mensibus gerit testiculum dextrum induratum, & magnum ex gonorrhæa, remediis adstringentibus suppressa.

Tentavimus pulverem A., & spatio binorum mensium testiculus ad statum naturalem fuit redactus.

EXPERIMENTUM XXIX.

In viro, 31. annorum, eodem morbo laborante eundem pulverem adhibuimus longo tempore, verum nulla fiebat mutatio.

EXPERIMENTUM XXX.

Vir, 24. annorum, pertæsus diuturnæ gonorrhææ, parat sibi injectiones ex remediis saturninis, quibus virulentæ materiei fluxus sistitur; & urinæ ardor cessat

Se tunc cito curatum gloriabatur, & gaudebat; verum post duodecim circiter dies

dies dolorem obtusum sensit in testiculo dextro, & eum tangendo observat esse multo majorem, & durum valde.

Sumsit remedia purgantia & mercurialia, sed sine effectu per aliquot septimanas.

Tandem me accessit, & re bene examinata adhibui pulverem *A.*, ex cujus usu spatio binorum mensium magnum levamen sensit; etenim testiculus mollis factus est, & multo minor; & tunc se jam curatum putavit, & ab ulteriori usu remedii abstinuit.

Contigit postea, ut iterum præter causam sibi cognitam idem testiculus valde intumuerit, durus admodum evaserit, & cœperit multum dolere.

Unde anxius rediit, & novam pulveris dosim efflagitavit.

Dedi tunc purgans ex granis *XL.* Jalap. & totidem granis cremoris tartari; & altero die præbui grana *XX.* pulveris *B.*

ma-

mane, eandem dosin iteravi ad meridiem, & vesperi.

Hac ratione, diligenter continuando, spatio novem septimanarum perfecte convaleuit æger; testiculus naturalem magnitudinem, mollitiem, & figuram iterum obtinuit.

EXPERIMENTUM XXXI.

Homo, 29. annorum, pannum crassum jam a 23. annis habet in oculo sinistro supra totam corneam transparentem.

Hoc malum ex variolis confluentibus originem derivavit.

Pulvis *B.* intra paucos dies manifestam induxit mutationem; pannus hinc inde tenuior & transparens fiebat, & æger cœpit lumen bene distinguere.

Mensis spatio pannus evanuit, & relinquebatur solummodo in latere sinistro levis nubecula; quæ sensim quoque difflatur.

Statim in principio dedi huic ægro ter quotidie scrupulum unum pulveris *B.*, nec amplius dosim auxi.

EXPERIMENTUM XXXII.

Fœmina, 50. annorum, ab aliquot annis laborat in oculo dextro amaurosi, & in sinistro habet cataractam.

Nunc in tertium mensem utitur pulvere *A.* & iris in oculo dextro fit mobilis, & cataracta jam videtur multo tenuior, sed ægra nullam adhuc lucem percipit.

EXERIMENTUM XXXIII.

Vir, 40. annorum, ex morbo acuto, gravi admodum, visum in utroque oculo sensim amisit; in dextro orta est amaurosis, & in sinistro glaucoma.

Per aliquot annos utebatur variis remediis, sed a nullo sensit in oculis levamen.

Per binos menses nunc sumit pulverem *A.*, & glaucoma minuitur, iris in
ocu-

oculo amaurotico mobilis fit, & æger candelam vespertino tempore lucentem distinguit.

EXERIMENTUM XXXIV.

Puer, 6. annorum, oculo dextro fere nihil videt, quoniam is totus est opacus, & turbidus ex morbo varioloso, quem biennio abhinc passus est.

Sumsit nunc pulverem *A.* per binos & dimidium menses, & oculus est serenus, & visus bonus.

EXERIMENTUM XXXV.

Puella, 9. annorum, ad depellendam oculi dextri inflammationem applicuit collyrium ex aqua rosarum, & vitriolo albo; valde tunc doluit oculus, & aucta fuit inflammatio.

Venæ sectionibus & remediis antiphlogisticis alvum ducentibus opus erat, ut suppuratio impediretur.

Cessit tandem inflammatio, sed mansit opacitas in tota cornea, & oculus erat adeo sensibilis, ut nec minimum lumen ferre potuerit.

Dedi ter de die grana X. pulveris *A.*, & altero statim die oculus, qui antea erat totus siccus & aridus, cœpit multum plorare.

Spatio octidui puella eodem oculo potuit lumen sat commode ferre.

Finito mensis spatio oculus bonus fuit; nec necesse erat augere remedii dosim, quoniam has cito & bene perficiebatur curatio.

EXPERIMENTUM XXXVI.

Juvenis, 13, annorum, ad angulum externum oculi dextri habet tumorem ex rubro lividum a medio anno, & tota ejusdem oculi cornea est opaca, & obducta crassa albugine.

Suasi ut ter de die sumeret grana X. pulveris *A.*, qui in principio magnos dolores excitavit in oculo et tumore.

Spa-

Spatio octidui ex tumore fiebat abscessus, qui sponte rumpebatur, & pus bonum, copiosum effluxit.

Curavi dein ruptum tumorem tegi emplastro diach. simplici, & jussi, ut continuaret pulverem *A.* eadem dosi.

Spatio unius mensis tumor totus dissipatus est, & oculus naturalem pelluciditatem recuperavit.

EXPERIMENTUM XXXVII.

Puer, 10. annorum, ulcus sordidum & magnum habuit ad tibiam pedis dextri, collum & scapulam dextram serpigo antiqua occupavit.

Sumsit ter de die vasculum infusi lenioris *Pulsatillæ nigricantis*, & eodem infuso eluit mane & vesperi ulcus, & dein lintea carpta eodem infuso madida applicuit.

Spatio binorum fere mensium non solum ulcus perfecte fuit curatum, sed etiam serpigo tota evanuit.

Urina ex usu hujus infusi copiose eliciebatur.

EXPERIMENTUM XXXVIII.

Vir, 46. annorum, in oculo dextro propter cataractam admodum densam nil videt.

Sumsit nunc per quinque septimanas pulverem *B.*, & cataracta videtur tenuior, & æger, dum candela incensa fertur in cubile, lucis splendorem percipit.

Magnos semper ex assumpto remedio dolores sentit in oculo affecto.

EXPERIMENTUM XXXIX.

Vetula, 65. annorum, ultra viginti annos oculo sinistro prorsus nil videt; erat enim is totus ex ophthalmia inflammatoria destructus, & habebat figuram, molemque præternaturalem.

Sumsit per binos menses pulverem *A.*, unde in principio dolor ingens in oculo oriebatur, post aliquot dies cœpit pus
per

per narem sinistram mungendo prodire, dein ex partibus internis palpebrarum, & earum margine copiosum pus protrudebatur; membranæ crassæ, albæ, & variegati coloris, factæ sunt tenuiores, moles oculi diminuta est, & ægra hoc oculo potest nunc objecta distinguere.

EXPERIMENTUM XL.

Vir, 62. annorum, in oculo sinistro jam ultra septem annos habet cataractam, & nihil videt, oculus dexter ita quoque debilitatus & sensim turbidus factus est, ut miser nec labores suos amplius perficere, nec solus in platea ambulare potuerit.

Sumsit ter quotidie grana X. pulveris B., & jam solus per plateas incedit libere, & labores suos, qui oculum exactum requirunt, peragit, & in oculo sinistro candelæ lucentis splendorem percipit.

In hoc ægro promptissimum remedii effectum observavi; nam hæ mutationes spatio duodecim dierum contigerunt.

Sunt adhuc numerosissimi ægri, qui extracto *Pulsatillæ nigricantis* utuntur, & in pluribus bonum effectum jam experior.

Vir, 35. annorum, pertinacissima melancholia laborans, & totus macilentus sumsit pulverem *B.* & inde intra paucum tempus reficiebatur, perversæ mentis ideæ disparuerunt, rediit robur, & sanitas.

Unde putabam: idem forsân medicamentum profuturum Epilepticis aut Maniacis.

Rogavi propterea Dominum *Faucken* & Dominum *Rechberger*, ut in suo Nosocomio ad S. Marcum, ubi tot homines similibus malis affecti decumbunt, experimenta instituerent.

Verum nec in morbo epileptico, nec in mania ullum ex hoc remedio effectum observarunt.

Au-

Augebatur dosis, donec epileptici drachmas duas, & aliqui maniaci drachmas tres pulveris *B.* per diem assumsissent; nec ullo modo inde afficiebantur.

COROLLARIA.

- 1.) *Pulsatilla nigricans* est remedium innocuum & efficax.
- 2.) Ægri videntur facilius ferre extractum hujus plantæ, quam ejus aquam destillatam, quoniam hæc majori dosi data aliquibus conatum vomendi, & nauseam excitavit.
- 3.) Nihilominus sunt ægri, qui hanc aquam sine omni molestia assumunt, & iis subinde prodest in vehementissimis artuum doloribus nocturnis, in topiis venereis &c. profuit quoque quibusdam paralyticis.
- 4.) Extractum *Pulsatillæ nigricantis* solvit potenter, nil tamen in corpore turbat.

D 4

5. Plu-

- 5.) Pluribus movet urinam copiose.
- 6.) Quibus tormina ventris exitat, & dein leviolem diarrhæam, his salutare plerumque est.
- 7.) In quibusdam chronicis oculorum affectibus videtur maxime convenire, & vix non specificè in oculos agere.
- 8.) Bonum est: si ægri sentiant inde in oculis dolorem.
- 9.) Amaurosim subinde curat, quandoque diminuit cataractam; pannos autem, ungues, & albugines frequenter dissipat, neque opus est ullo remedio externo.
- 10.) Infusum *Pulsatillæ nigricantis* tuto quoque datur interne, applicaturque externe in fœdis ulceribus, in carie, & serpigine.
- 11.) Quibusdam fœminis fluxum menstruum, præternaturaliter suppressum, *Pulsatilla nigricans* iterum excitat, & redigit in ordinem.

APPENDIX.

Biennio abhinc edidi libellum de usu interno & externo herbæ *Flammulæ Jovis*, & multis experimentis comprobavi: *Flammulam Jovis* efficacissimum quandoque Remedium esse in pertinacissimis & diuturnis capitis doloribus, in ossium doloribus nocturnis, in cachexia venerea, in scabie, herpete, in ulceribus ichorosis, fungosis, cancris, in carie ossium &c.

Iterata experimenta usu ejusdem herbæ & a me & aliis multis Medicis instituta eundem iterum effectum, & eandem efficaciam confirmant & adtestantur.

Fœminæ plures, summa & tristissima melancholia laborantes, infuso *Flammulæ Jovis* integre restitutæ sunt.

Ferdinandus *Leber* chirurgiæ Professor cancrum exulceratum mammæ, qui nec cicuta nec aliis medicamentis mitigari poterat, sola *Flammula Jovis* radicitus percu-

ravit publice coram suis discipulis & quibusdam Medicis.

De usu & utilitate *Cicutæ* ulterius disserere superfluum arbitror; quum novi viros cordatos, & bonos Medicos illam ea, qua par est, æquitate respicere, illamque ægris suis optato cum successu persæpe adhibere.

Extractum *Aconiti* flore cæruleo, seu Extractum *Napelli* nova experimenta semper magis magisque commendant; & est sane! egregium medicamentum, quod parva dosi multum præstat.

Prodest frequentissime in malis venereis, ubi laudata alia remedia incassum adhibentur.

Tollit quandoque exostoses venereas, & articulos rigidos reddit mobiles.

Levavit sæpius Podagram, Arthritidem, & Rheumatismos pertinacissimos.

Dedi hoc extractum in similibus morbis, etiamsi febris adfuisset valida; sed tunc adjunxi debitam nitri quantitatem.

Et

Et observavi hac methodo aliquoties vehementissimos dolores fuisse intra aliquot horas penitus dissipatos, qui per multos dies copiosissimis aliis medicamentis nec leniri poterant.

Plerumque sudor largus sequebatur.

Ægri ferunt hujus extracti grana duo, tria, quatuor, quinque &c. nycthemeri spatio, dosibus divisis.

Oxymel ex recenti & succulento *Colchici autumnalis* Bulbo paratum, plures iterum gravi hydrope, vel & asthmate glutinoso pessime affectos curavit pellendo urinam, aut promovendo sputa copiosa.

Si hoc oxymel ex Bulbo arido vel farinoso conficiatur, tunc caret omni efficacia.

Extractum *cicutæ* mixtum cum oxymelli *colchico* in hydrope, a viscerum obstructionibus orto, sæpe mira præstat.

Hyosciami Extractum spasmos & convulsiones frequenter compescit; juvat quandoque in morbo epileptico, in mania, & furore.

His-

Hisce diebus vidi sacerdotem optime valentem, & fungentem munere honorifico, ad quod perfecta mentis sanitas requiritur, qui ante binos annos mania laboravit.

Similes casus existunt plures.

Fœmina, 38. annorum, per tres integros annos singulo mense bis vexabatur paroxysmo gravissimo epileptico, curata solo *hyosciamo*, jam ultra annum optime se habet, hilaris est & libera ab omni malo.

Hyosciamus tusses molestissimas phthisicorum quandoque longe melius & citius mitigat, quam ipsum opium.

Parva dosi subinde optimo cum successu exhibui extractum *Hyosciami* in convulsionibus infantum, ortis a terrore.

Hoc extractum recta methodo datum ægris nunquam nocet, & confert sæpe.

Miror propterea magnæ famæ Medicum in ultimo suo tractatu extractum *Hyosciami* aut inutile pronunciare aut noxium;

xium; licet id propria experientia non observaverit, sed audierit solummodo ex aliorum relatis.

Ego certus sum, quod doctissimus ille Vir, quem vere veneror, aliam de *Hyosciamo* sententiam confiteretur, si solita sua prudentia ejus extractum in ægris suis tentaret.



